

Grass Roots

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Solar Electricity

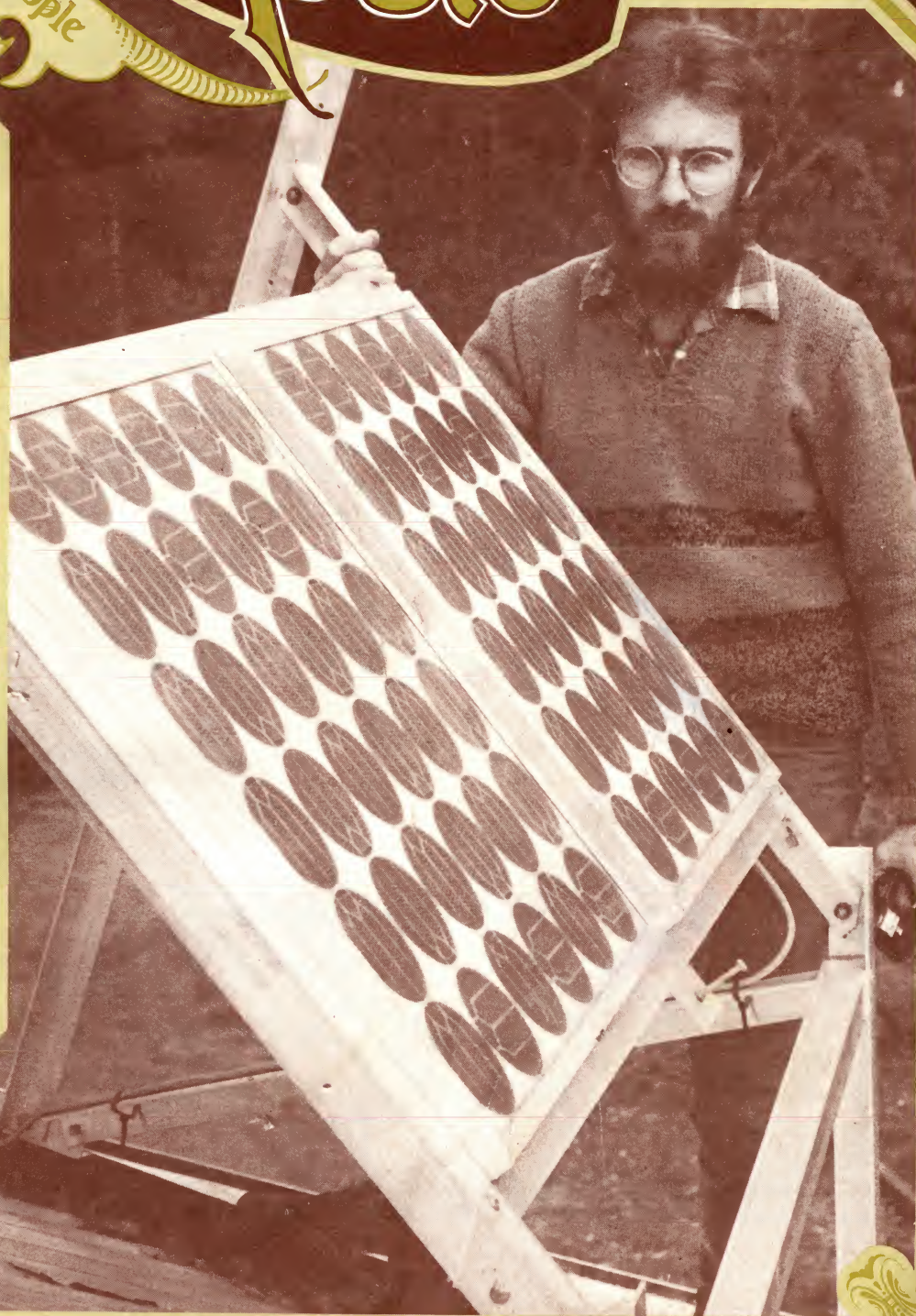
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Front Cover: Trevor Berrill checks a home solar electric system used to provide lighting and music (see p. 30). Solar electricity is becoming popular in Australia because solar modules are dropping in price and the systems need little maintenance. Trevor is from 'Alternatives', a business located at Toowong, in Brisbane, which specialises in energy systems.

Back Cover: Inside a gypsy van. Horse-drawn homes are remarkably well-equipped. In this issue a New Zealand reader provides plans for a home on the road.

Feedback Link-Up Feedback

Dear Readers,

For Paul Asher, GR 39, page 92, who wanted help with natural home insulation, you might be able to use the following information.

The three sea grass genera *Zostera*, *Heterozostera* and *Poseidonia*, all true Graminae, are common on beaches along the south coast of Australia when the blades fall off in Autumn waters and drift ashore from beds just below the low water mark. Apart from making an excellent and abundant garden mulch, what with being full of shells and other marine life, the composted and compacted grass makes a very cheap and effective insulation. The composting is important, however; decomposing sea grass releases heat (a 7 ton pile will heat household water for 20 months at 150°F) until, if turned once a day or more for 20 days, it decomposes to a basically silicate skeleton. The ASA ratings of a commercially made product of this nature (*Alpinite*, about \$12.00 for 7 kg) are, for fire, zero (non-flammable) for insulation, better than fibreglass. The homemade product would have to be kept completely dry once in use, to prevent any further decomposition. If you're going to collect large amounts, a scavenging license from your local Council might be needed.

Can anyone help our dog? He suffers badly from ear infections in this tropic climate, and with the approaching 'Wet', it has flared up again. Veterinary antibiotics didn't work permanently, even with continuing application, and onion juice and alcohol spirit are too painful to use.

Also, can anyone direct us to a book that comprehensively details the making of herbal tinctures, oils and lotions?

**Alex Jay
Millkapiti
MELVILLE ISLAND 5791.**

Dear Readers,

My husband and I will soon be touring Australia and we are faced with the problem of finding a good home for our pet Angora goats. Zack and Zeus who are 3½-year old wethers (twins) have very good fleeces and are lovely friendly pet lawnmowers. They must go to a caring home. If anyone is interested please write.

**Lyn & Dave Warboys
21 North Beach Road
WALLAROO 5556.**



Edited by Meg and David Miller.

Published by Night Owl Publishers Pty. Ltd., Box 900, SHEPPARTON 3630.

Grass Roots is produced for those who wish to regain control over their lifestyle by exploring the alternatives to modern mass consumption. Whether you've just started out or you're an old hand, why not share your experience and knowledge with other readers of Grass Roots. All contributions of articles and photos are welcome.

Cover design and artwork by Ian Boyd.

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Dear Grass Roots Folk,

For Fiona Martain (GR 40) a recipe for goats' cheese:

Take all the milk from the evening milking and leave undisturbed all night. In the morning, skim the cream from it and warm over a pan of hot water. When it reaches blood heat, mix it through with the next morning's milk, and then add the mixture to that evening's milk. All the milk is then heated to blood heat very slowly, and 1 gram of rennet added to each gallon. When this has been left to cool for one hour the thick curd will break cleanly between the fingers. This is then stirred while the temperature is raised to 98°F. Continue stirring steadily for 1 hour. At the end of this time, the curd will be yellow and spongy, and the pale whey is then strained off. You then pack the curd gently into cheese moulds, where it is lightly pressed for 3 weeks. This cheese is so good, that it's well worth the long stirring and the slow ripening.

**V. Green
C/- Mrs B. Caroli
Verity Green
URAILDA 5142.**

Dear Readers,

I would like to exchange my delightful brick home, for a home near Cairns or District nearby for the month of July. This is a two bedroom house, carpeted, all modern conveniences, large awnings back and front, lovely gardens, barbecue. Opposite beach and lake, near shops. In exchange I would like a clean and comfortable home for 2 adults and one dog. A reference and complete description of your house and situation — and an honest one. Perhaps a visit beforehand? I consider *Grass Roots* a treasure I have just discovered, a light among the clouds.



**Thora Carle
'Pollyanna',
8 Pacific Street
TERRIGUL 2260
Ph. 841-162.**

Dear People,

In answer to Jenny from GR 40, Pingelly WA. Rhubarb stems are acidic, so don't eat large quantities at a time. The leaves contain strong concentrations of oxalic acid and must not be eaten at all. The dried and powdered root is an astringent medicine for stomach and bowel troubles. A decoction of the root or the powdered root mixed to a paste can be used as a yellow hair dye. Because of its acidic action rhubarb acts as a descaler when boiled in a kettle or pan. The crushed leaves make a good scourer for brass or copper. Now, I would like some help. Does anyone know where I can obtain Aloe Vera seeds? Any information would be greatly appreciated. Thank you.

**Christine Kershaw
'Belvalo'
LOCH 3945.**

Dear Grass Roots Readers,

I would willingly become a foundation member of the Anti-Macedonia Nut Society (GR 39) on one condition: that the use of the correct name for these beautiful nuts be compulsory for all members. The Macadamia nut (*Macadamia tetraphylla* and *M. integrifolia* are the botanical names of the edible nut varieties) was named by Ferdinand von Mueller (Director of the Royal Botanical Gardens in Melbourne) in 1857, after his friend Dr John Macadam. The 'two' brothers, mentioned by Angel Britton in her letter as having renamed the nut in honour of their native country were perhaps Steve, Nick and George Angus, Greek migrants, who established Macadamia Nuts Pty Ltd in Murwillumbah, NSW, in the mid 1940s. They, however, knew and used the correct name as evidenced by the photograph of their delivery truck published in Jacqueline Power's book *Macadamia Power in a Nutshell* (Hamilton, Qld, Macadamia Power Pty Ltd, 1982, p. 27).

The Macadamia nut has many local names (Queensland nut being but one of them) and grows naturally in both Queensland and New South Wales. I have, for some time, been on a campaign of encouraging the use of the correct name, especially by retailers, and support Angel Britton's cause. But please don't blame the Angus brothers for the average Australian's inability to correctly pronounce the name of this great Australian native.

**Bev Atkinson
'Kindal'
Sullivan's Road
VALLA 2448.**

Feedback Link-Up Feedback

Dear Readers,

I was interested in the answers to a letter from the Nelsons in GR 37. As far as animals are concerned are they so very different from humans? The more I see of immunisation the less I like it. Since the advent of pastures treated with chemicals, superphosphate or totally weed-free leys it has become necessary (apparently) to immunise sheep and goats against enterotoxaemia (pulpy kidney), a clostridial infection similar to tetanus and polio.

I do not immunise my goats because I feel that the immune system is quite delicate enough without upsetting the balance. My goats do not get enterotoxaemia but I have frequently leased and boarded goats that have been immunised and I watch them like a hawk because I have learned from bitter experience that they *do* get enterotoxaemia. Their natural resistance is much lower than an unimmunised beast.

My dogs are not immunised against distemper, parvo virus or any of those conditions. Should the dogs contact them they are easily cured at the outset with vitamin C injections. I learnt that lesson the hard way when my eldest son brought home a puppy from the Lost Dogs Home. It had been 'done' for distemper too young. Ten days after the injection she became very ill. A vet friend suggested I was mad to try and cure her—he'd never cured one that had been given distemper by the needle. I succeeded in doing so and she's a very well dog but it took three weeks of heart-rending nursing and lots of vitamin C.

In the last two decades immunisations for horses have reached high proportions—so has cancer in horses. Many vets I know are very worried about the increase in previously unheard of diseases, and several of them admit that they have doubts about what the frequent immunisations have done to the immune systems of animals.

If the diet is a good wholesome one—be it animal or human—with no processed or refined foods and no sugar etc., the natural resistance should be quite high enough to cope with ordinary diseases. Naturally vitamin and mineral supplementation is needed where there is a deficiency in these areas. I recommend a magazine called *Health & Healing* to anyone who has doubts about immunisation, and also to help with understanding a condition called hypo-ascorbemia or subclinical scurvy. That is the reason why we do not have the resistance to disease that we should have, and it is relatively easily and cheaply overcome without upsetting our very good natural immune system with largely unnecessary injections. My eldest child was immunised against polio at six months and was dangerously ill for six days, due to the fact she was developing a cold at the time of immunisation. After that, beyond the mandatory smallpox vaccination, none of the others received anything else until we came to Australia and the youngest child, Hugh, was dutifully immunised against everything as instructed. He was a sickly child, never growing much, but luckily well fed as we could not afford fancy food. At 12 years he weighed 56 lb, at 14 years he still weighed the same, and was diagnosed as having terminal cancer (see GR 22). Cancer is a condition present in all people—this has been proven beyond doubt. Our immune systems, when in working order, keep it under control and most people never have it clinically *unless* their diet, way of life, or lack of a healthy immune system let it take over.

When I was young I had all the diseases that children are immunised against these days. Alright, it takes time and trouble to nurse a child through whooping cough, measles, chickenpox, scarlet fever. But with our knowledge of vitamins and minerals, most of these conditions are not even serious if the right things are given, and the immune system is left unimpaired except for an immunity gained the natural way.

In the final analysis whether to immunise or not is the decision of the person or parents concerned, but do look at the whole question from both sides. Read the work of Bechamp, who was a contemporary of Louis Pasteur, and understand that diseases are present only because the body chemistry is disturbed and draw your own conclusions.

References are *Second Thoughts About Disease*, Kalakerinos & Dettman; *Vitamin C – The Healing Factor*, Dr Irwin Stone; *Ascorbate Dependency: A Human Mutation*, Dr Irwin Stone (*Health & Healing* magazine, Vol. 3, No. 1); *Lets Get Well*, Adelle Davis; *Biochemic Handbook*, Dr Schuessler; *A Gentle Way With Cancer*. Account of the work of Dr Alec Forbes, Bristol Self Help Cancer Centre, England.

Pat Coleby
Peppercorn Stud
HARCOURT NORTH 3453.

Dear Sisters & Brothers,

I intend establishing a centre in northern NSW which will focus on waterbirths, waterbabies, and conscious parenting. I am a homebirth midwife who has been involved with birth reform for the last 10 years and attended the 1st International Waterbirth Conference in NZ in September 82. Since then I have attended numerous waterbirths and am thoroughly convinced it is the ultimate in gentle birth for both mother and baby. We have designed and build a collapsible, portable spa-sized birthing pool which allows full support and manoeuvrability as well as all the comforts of warm water. The Centre will be opened in 84.

Parents who are interested in the concept of waterbirth are invited to make contact with us. I would also like to hear from any persons who feel drawn to the concept and would like to serve in this field. There will be opportunities for these individuals to live in, and increase their knowledge and experience. Any offers of help to get this project off the ground and any donations will be greatly appreciated by all, present and future. Send full particulars, including a recent photo for registration.

The Co-ordinator
The Water Connection
PO Box 253
YANDINA 4561.

Dear Grass Roots Readers,

I thoroughly enjoyed reading your magazine for the first time. Many things have been happening in my life lately one of which is a move south to the security of a lovely 4 B/R farmhouse about 10 miles from Yass, NSW. I am a mature, independant, nature-loving lone mother of a 21-month-old daughter. I would like to hear from another lone mother or single woman interested in sharing with me. There is no land with the house but a huge country-sized yard which I can't wait to plan and plant. Hope to hear from someone for more details.

Leonnie B. Spencer
C/- 106 Abbott Street
OONONBA 4811
Ph: 077-782-953.

Dear Fellow Readers,

Could a reader please tell us of recipes using cashew apples and also a method to prepare the cashew nuts? I have only two trees so would be interested in methods to prepare approx. 2 kg of nuts at a time (non-mechanical please).

We are growing pecans, avocados, Bowen mangos, rambutan, carambola, longan, lime, mulberry, jaboticaba, pawpaws, bananas, oranges, grapefruit, pummelo, tropical peach, guava, pomegranate, taro, sweet potato, litchi. Unfortunately the monsoons and the inevitable cyclonic weather from November to March cause havoc to the tiny fruit and what is a great crop in October is halved by March.

Denyse Bonney
14 Jordan Street
OONONBA 4811.

Dear David & Meg,

We are Hermann (24) and Anke (22) and have lived for two years on a farm in West Germany where we make mature adapted agriculture and have some goats. Because of the political and ecological conditions we have decided to leave West Germany and emigrate to Australia. Our first problem is how to immigrate. Money is not the problem because we will sell our farm, but we must have a job. We want to buy land and live as self-sufficiently as possible. Are there any readers who would write to us and supply details on how to immigrate and what are the requirements. We hope that you will answer quickly. Many thanks.

Hermann Diederichs & Anke Picare
Konigstrasse 3
3588 Homberg-Hulsa
WEST GERMANY.

Dear Readers,

Has anybody any ideas on how to improve the quality of the lousy kerosene supplied by the oil companies – 4½¢ a litre dearer than super?

The name for wandering Jew is *Tradescantia albiflora*. Rancidity can be eliminated if wholefoods are placed in refrigerators. This also stops weevils as they don't like the cold.

G.H. Naylor
PO Box 186
BERRI 5343.

Feedback Link-Up Feedback

Dear GR Friends,

In reply to Colette Audas (GR 39) – there is no escape from nuclear attack. Direct hit or no, sometime, somewhere, the appalling effects would reach you. There is also nothing 'inevitable' about nuclear war. It will occur if we – ordinary people such as you and I – allow it to happen. And we *will* allow it to happen if we think only in terms of 'escape' or fail to raise our voices in protest. It is not enough to 'escape' to the country or desire a more natural lifestyle if the threat of nuclear holocaust continues to hang over us. A more natural living pattern has nothing in common with perverse technology whose ultimate expression is nuclear 'weaponry'. An acceptance of harmonious living must, of necessity, go hand in glove with an abhorrence of hydrogen bombs. There has never been, in the entire history of planetary life, an issue of more importance than the nuclear issue. Escapism is no answer and is the final denial of our moral and spiritual character. Have none of it!

John Martin
10 Alamein Ave
WARRACKNABEAL 3393.

Dear Readers,

In reply to Sue Boyd (GR 39), I have heard that biodegradable soap powders are suitable for what you want. They are supposed to be 'recyclable'. As far as washing babies' clothes, I use my normal soap powder. If your baby is allergic to it all you can do is to keep changing until you find the right one. Usually Amway's SA-8 is good for any allergies. As a mother of eight I can speak from experience. Now for a request. Does anyone know of land (5-100 acres) in my area that is for lease or for sale. We would need vendor terms as we don't have the ready cash. We have an old house (the original hospital) which we own. We are carrying out renovations and will then sell to pay for our land.

Joy Foot
Foots Folly
22 Mirrool Street
ARDLETHAN 2665.

Dear Friends,

We are looking for intelligent, rational people with a diversity of skills, age and experience to establish a community within reach of Canberra. We want to stay within reach of the educational, social and employment facilities of the city because we feel that it is possible to lead sane and humane lives without abandoning all the advantages of modern society. The community could be a hamlet-style development based on the purchase of shares in a viable farm. It would be a unified, co-operative structure, as opposed to a loose association, with a strong emphasis on breaking down stereotypes and the development of new roles and relationships. The sort of people we want to live with are politically aware, non-sexist, motivated without being faddist, and good humoured. Anyone interested please contact us.

Ruth Cotton
48 Henderson Street
QUEANBEYAN 2620
Ph: 062-975-826.

Dear Grass Roots,

It was great to read my first issue of *Grass Roots* and find out that other people feel like leaving the rat race of the city to become self-sufficient with an alternative lifestyle. I hope I don't have to wait too long. Presently we (Chrissie, Bob and Robert 11) are living in Perth hoping for a chance to make the break. We spend most of our time in the country on weekends as we are always going away on diving trips. We are thinking of buying a few acres somewhere between Jurien Bay and Geraldton (north of Perth) – we especially like Dongara. Are there any readers living in this area? I would love to hear your advice on the advantages/disadvantages of the area. As we are skindivers and love anything to do with the ocean, that is the vicinity where we must find our land. But I am concerned about growing vegetables, herbs and fruit so close to the sea. I would also like a cow, chickens and a beehive. We have been reading books on mudbrick houses – we love the idea – and would appreciate any advice or help in this area. What designs are of advantage near the sea, what features you can build, and just about anything a new homebuilder would need to know. I would love to hear from anyone who can help out.

Chrissie
PO Box 201
TUART HILL 6060.

Dear Folk,

The property which I am interested in stocking with goats is at Kempsey, NSW (mid-north coast). There is an abundance of *lantana* on the property. At present I am carrying out a program to eradicate it as it is poisonous to cattle. Goats seem to be able to cope with various weeds that cattle do not eat such as blackberries. Could you advise me if *lantana* would be poisonous to goats?

Ruth Plotrowski
56 Archdall Street
MACGREGOR 2615.

Lantana is poisonous to goats according to a list of Plants Poisonous to Goats in GR 16, p. 10. But a small amount eaten by a goat with a well-balanced diet would probably not be fatal.

Ed.



Dear Mudbrick Builders,

We have been in Australia for 2 years, living in Sydney's inner suburbs, and we are tired of it as you can imagine. So we bought a property on the north coast NSW with three other couples and are planning to build a mudbrick shed in the next few months as the first part of a larger dwelling. Are there any readers who are building (or will soon build) with mudbrick? We would be happy to help you in exchange for some experience and learning.

Faress & Kate Samara
67 Kingsclear Road
ALEXANDRIA 2015.

Dear GR Friends,

I'm writing to try to help Peter and Sylvia Worni from Switzerland (GR 39), and any other would-be immigrants to this wonderful country. I won't go into great detail about my past life except to say that I was born in England, came here in 1959 and returned to England in 1970. After about 5 years even family ties were not enough to keep me there so I applied to re-enter Australia. Even with my passport stating country of residence as Australia I couldn't get in. It took me more than 3 years to get the OK and when it finally happened I couldn't believe it. In the meantime the government had adopted a points system which, I think, helped change my luck. This means that you are awarded points for things like, speaking and writing fluent English, having a sponsor, how much money you have and so on. I believe this system still operates. Being a family unit may be to your advantage too – I was single at the time. I suggest you write to the Australian Embassy in your country, if there is one. If not, write to Australia House, Strand, London, England. Ask them for a list of skills that are required by them to enter Australia. I did this and one of the skills listed was secretarial, so I did a secretarial course with Pitmans, became a secretary for a year and was finally accepted. There is a big but, however, make sure that your skills will be recognised in Australia or you will be wasting your time. I know it will take years but how much are you prepared to go through to get here? For me it was sheer hell at times. For goodness sake, don't tell the authorities that you plan to opt out and live a grass-roots lifestyle – they want to build a bigger Australia not a better one. Being here and then applying for a resident's visa won't work. If they gave in to everyone who tried to do that they may as well abandon the visa system. You may be successful if you have enough money to start a business here and some left over to live on. If you have an offer of a job I think your prospective employer has to convince the government that he can't find anyone suitable to fill the position who is already living in Australia. Also you will need a sponsor, someone who can prove, if necessary, that they are able to house you comfortably while you find somewhere to live. If you have relations out here that will help. Finally, keep pestering them with letters, write every few months, tell them how you are progressing – they take ages to answer anyway. You may have to do a lot of things that you hate doing in order to achieve your goal and it may take years, but if you want something badly enough you won't give up. Good luck.

Val Broxson
PO Box 838
GOSFORD 2250.

Feedback Link-Up Feedback

Dear Grass Roots People,

We are a family of four, myself, husband Ian and our children Adam (3) and Holly (1). We are presently living in a suburban area which is gradually becoming filled to overflowing with multiple dwellings. For years we have been wanting to get out onto some acreage and do what we want to do instead of being restricted by the dictates of our neighbours. At long last it looks as if we may be on our way. This is where the problems begin. We would like at least 5 acres of gently sloping land which *must* have a bore or a permanent creek, not more than 20 minutes from Mackay, priced around \$20,000. We are very conscious of looking after the land properly i.e. not using any chemicals or artificial fertilisers, companion planting, composting and generally trying to live in harmony with nature. We have looked at several places but they are either too steep or the price is way over our heads. Does anybody around our area have anything which just might suit us – please?

As the years have passed we have gathered together quite a family of animals so we also need an area where other similar-type people live. We have 13 hens and one mad rooster (Smiler – he sulks a lot), a huge Labrador (Storm), a too-fat Labrador/Kelpie cross (Levi), two speyed cats (Ming and Sabbath) and we have recently acquired a horse (Bent – named by our son). Ian says after he has lived with us for a while he probably will be! Bent is living on an Arabian stud at present until we buy our land and move.

We have absolutely no experience when it comes to building but we would like to build a kit home by ourselves. Has anyone in our area done this? Ian is pretty cluey but we would like to know of any pitfalls that we should look out for. Also we want to learn about making mudbricks, using them for building stables etc. Will they stand up to our sort of climate – hot and wet? Can anybody around here teach me to spin wool and possibly later on teach me to weave?

I also need a reliable cure or preventative for sinusitis. I have used fenugreek tea but find it leaves a noticeable 'musky' odour about one's skin – any suggestions?

Many thanks Meg and David for a wonderful magazine – it has given us hope.

Ian & Sandy Gunder
47 Hamilton Street
NORTH MACKAY 4740.

Dear All

In reply to Rob Harle in the item *Building Shelters* in GR 34. If you are after parts for kero refrigerators try Fred Payne, Nords Wharf, phone 049-761-391 (evenings or weekends), or Hallcroms, Leichhardt, Sydney, phone 02-560-4044. I was after Hallstrom Silent Knight glass chimney and wicks and both had some so they are worth a try for other brands. I am a new reader and like your magazine very much.

N. Mooney
PO Box 8
TORONTO 2283.

Dear People,

I have enjoyed several issues of your magazine and pick up interesting tit-bits of info from your Feedback section – there are a couple I must comment upon in GR 39. Firstly Angel Britton from Batemans Bay is sadly misinformed about the 'Macedonia nut'. The correct name is Macadamia and it was named after a man by the name of Macadam – an Australian!

Kerryn Lukey, Murray Bridge asked for a cordial recipe and S. Horwood from Cookamidgera asked for citrus drinks so this 50-50 recipe I use may help both people. Ingredients are 6 large oranges, 3 lemons, 1 oz citric acid, 1 small packet Epsom salts, 6 lb sugar, 2 oz tartaric acid, 4 pints water. Grate rind of 3 oranges and 3 lemons. Squeeze all fruit. Place juice, rind and all other ingredients in saucepan and boil for 5 minutes. Bottle with airtight corks when cool. This will keep for months.

I have been growing large numbers of native trees and shrubs from seed for wind breaks and have found that bread bags (plastic) have a second use as a tree guard for newly planted seedlings when put over three small wooden stakes. Also cardboard milk cartons can be utilised with two stakes.

Marie Grylls
Moorabbee Road
Knowsley RSD
HEATHCOTE 3606.

Dear Grass Roots People,

My wife and I have been avid readers of *Grass Roots* for some time and recently decided to seriously explore the possibility of joining or forming a community somewhere in NSW (preferably northern). To date we have not had any direct contact with anyone who has experience in the operating or establishment of a small co-operative community, and those that we have read about 'appear' to be polarised around religious, or some other specific type of lifestyle.

Forgive me if I am wrong, but we also have the impression that some grass roots communities spurn the utilisation of many of the benefits which our technological civilisation has provided, opting for very basic survival techniques. Are there communities or individuals out there who do not want to 'throw out the baby with the bath water', communities which cater for those 'middle of the road' people who have worked hard and achieved valuable skills, but who wish to find contentment in a rural environment at an easier pace with a group whose philosophy is 'live and let live', but who want to remain close enough to society to provide their children with the skills they will need to survive in the system should those children one day decide that city life is the life for them.

Would readers please write to us if they can help with any information about community living, either to let us know that our thoughts are ill-formed or perhaps to expand them. Those especially who are contemplating community rural living, please write and share your thoughts and we will endeavour to (confidentially if so required) pass on to each correspondent any information we receive which may be appropriate.

Tricia & Geoff Daley
5 Grand Parade
BONNELLS BAY 2264.

Dear Grass Roots,

Here is a recipe that may help I.E. Vass of Calala Drive, Strathpine (GR 38) who wanted a recipe for mulberry wine.

Take 3 kg mulberries, 2.5 kg sugar and 30 g cream of tartar. Place ingredients in a large saucepan with 4 litres of water and boil for 15 minutes. Press through colander, then strain through scrupulously clean cheese cloth. When cool add 4 tbsp brandy. Bottle (screw-top bottles ideal) but do not cork down. Cover bottles with a cloth. When wine has fermented 12 days cover finger with paper towel and clean inside neck of bottle. This also ensures sufficient liquid is displaced. Screw lids on bottles or cork tightly. The wine will be ready for use in 8 weeks. It is better if kept longer and excellent if kept 12 months.

M. Little
PO Box 19
CUNNAMULLA 4490.

Dear Grass Roots People,

I have a never-fail method of using under-ripe fruit for jelly making. Fruit is cooked for 3 minutes only in pressure cooker.

Wash fruit. Place in pressure cooker, add 2 cups water, bring to boil. Place valve on cooker. Cook fruit for three minutes. Cool cooker quickly. Place cooked fruit and juices in jelly bag (discarded cloth flour bag). Should you have a large quantity of fruit keep repeating the above method. A container which is not metal should be used to catch all drips. Leave to drip overnight. In the morning test it by taking 1 tsp of juices and place in an old cup with 1 tsp of methylated spirits. Shake mixture thoroughly. This should form a clot. If not you must pressure cook and go through the whole process again. Measure juices thoroughly, add exactly equal cups of sugar. Bring to boil in jam pan skimming where necessary. Test until jelly wrinkles on saucer. Sterilise jars for 10 minutes in hot oven. Bottle and seal with wax.

Should anyone want NZ spinach it grows wild on the foreshore which is 400 yards away. I use it as soup stock, minced in pasties or dim sims and in stir-fry dishes. I will gladly exchange this and Turks Cap pumpkin seed (hybrid breakdown from Golden Nugget seed) for old-fashioned cabbage rose cuttings or Cherry Pie, Evening Primrose plants.

I do badly want to make friends and hope people will write. Divorced years ago I am now 46. If we did not all have something in common we would not appear in GR nor would we have that feeling for good old Mother Earth. We do have something special yet in this town 95% are hip-pocket devotees. Being fourth generation I know.

Flo Bubb
1 Neptune Street
MORNINGTON 3931.

Feedback Link-Up Feedback

Dear GR Readers,

An easy way to give oral medication to your cat is to have one person firmly wrap the unsuspecting cat in a folded blanket leaving only the head free. Hold firmly while a second person opens jaws and inserts medication into indignant puss!

If you have overcooked a fruit cake and it looks very dry don't despair. When the cake is cold carefully cut off any burnt parts. Put it in a steamer or a large saucepan with an inverted saucer on the bottom and add an inch of water. Cover saucepan with a lid. Steam for 15-30 minutes making sure water doesn't boil dry. Take lid off saucepan and let cake cool a little before removing it. When completely cold use cake as normal.

Soya bean pulp left over from making soya milk or tofu can be used as a substitute for dried breadcrumbs. Simply spread damp pulp evenly on a greased oven tray. Place tray in a slow to moderate oven. Stir it frequently with a spoon. Watch it doesn't burn. It is done when dry, crumbly and golden.

Does anyone know how to make home-made miso or vegemite please?

Michael & Margaret Sweeney
1 Ajax Street
BALLARAT 3350.

Dear Grass Roots,

Thank you for your wonderful magazine. I am in the process of acquiring as many copies as possible. If anyone has copies of 6, 7, 8 and 9 they could lend or sell to me I would be most grateful. Moving to the city after spending most of my life in the country is just about more than I can take and the call of good old Mother Earth is getting the better of me.

A friend and I are looking for 15-20 acres of bush, top of the North Island as far from the city as possible. I am hoping my course on permaculture taken in Australia will come in handy. I am looking for plans and ideas on building a log cabin. If anyone could help me out I would be most grateful. As they say, you don't have to live in the country to be self-sufficient. Of course, there are some restrictions as far as keeping livestock goes but we produce most of our own food in the backyard.

Ethyl Rawlings
42 Ellis Ave
Mt Roskill
AUCKLAND 4 NZ.

Dear People,

We are a family of five (28, 21, 4, 3 and 1) and are looking for an old farmhouse (between Macksville and Nambucca Heads) to rent or exchange for work - my husband has experience in piggery work and welding. We would repair any kind of house and garden. We hope someone can help as we can't afford much rent. We would like to settle as soon as possible as our eldest child starts school in 84.

V. Barnes
'Ryemere'
via QUIRINDI 2343.

Dear Readers,

As a result of our letter published in GR 33 we have met others in our area who are interested in an alternative way of life. We were also introduced to an active group in Castlemaine called Towards Self-Sufficiency. Also in response to the letter we had a call from a lady in Sutton Grange but inadvertently lost her name and number. Our apologies - please try again on 054-742-507. We promise to do better.

Harry & Robyn Fleurie
'Cairn Warren'
HARCOURT 3453.

Dear Readers,

Recently my parents bought your magazine for me to read when I was sick in bed. We have a small horse stud with 15 horses, 1 cow, 1 goat, 3 dogs, 1 cat, several chooks and a pair of budgies. This year we were blessed with the arrival of three foals - two fillies and one colt. They are all Appaloosa but only one was born with colour - the other two look as if they will colour when they are older. The father is our own stallion so we are very pleased indeed.

Janet Burdon
3 Private Lane
HOLMESVILLE 2286.

Dear People,

The only complaint I have with the magazine is when people write in and want to buy land, but do not say which state or which area they would prefer. There are a lot of blocks for sale in our area but I never answer any queries because they don't say if they want the land in Qld.

We love to try most of the gardening ideas and sorting out what suits our climate. We have chooks, a pig, goats, sheep, cattle, a horse and a donkey so there is usually something to interest us in each publication. It's great to see more Qld readers' letters and articles, and to know there are so many like-minded people around the place.

Debbie & Garry Brischke
MS 221
MARYBOROUGH 4650.

Dear Fellow Readers,

I would like to make my own cheese as I have a goat and a lot of her milk is wasted. I find that many hard cheese recipes do not give enough detailed instructions on any pitfalls encountered. So could cheesemakers please write and let me know how to make cheese and what problems there are to avoid.

Over the last four years I have become reasonably self-sufficient. I am 34 years of age and have two daughters. People think they are strange because they do not eat lollies and other rubbish food like their friends at school. We don't use sugar - we converted to honey about two years ago. For easy conversion use half the amount of honey to the amount of sugar given in the recipe.

Janine Watson
PO Box 212
NUMURKAH 3636.

Dear Gardeners,

Can anyone help me with a very annoying problem? We have free-range chooks that give us lovely eggs and have the run of 4 acres but they continually dig and scratch up our flower and herb garden. The veggie gardens are fenced but we can't do that with the others as it would look ugly. We don't want to pen them in all the time. Would anyone know of something I could put in the gardens to deter them? I would be grateful as I am fed up with chasing them off all day long.

Lisa
130 Rookes Road
SALTASH 2301.

Dear Readers,

Recently Bob Hawke announced his interest in seeing kibbutz-styled communities for the unemployed in country areas as a work project idea. The man must have some insight as to the obvious solution to the world's problems. Even if we disagree with labour policies he is the best hope we have for political sanity at the moment. I hope we will all support his efforts - perhaps an advisory committee could be formed by people who know and understand communities to assist the project in each city.

Garry Elt
10B Pagnell Crt
HAMILTON HILL 6163.

Hi Everyone,

For some time now, after having taken a short course, I have been making my own soaps very successfully (recipes in GR 13 and 14). I give most of it away and have even sold a little which gives me quite a thrill but there's always plenty for making into wool wash etc. My mother asked me if I could make her some soap which would kill fleas as her poor little dog is covered in them and has become immune to most cures. I thought a camomile soap may do the trick as it's meant to keep them at bay, but I am really only guessing. Does any kind soul have one such recipe they'd like to share? Mum's dog would be so grateful!

We have been keeping eight chooks and two ducks for the past three months and have been doing very well out of our lovely girls. Although I clean their house out thoroughly every fortnight (new straw etc.) there always seems to be heaps of tiny flies in the pen and house. Is there any way to be rid of them? Nothing I've tried seems to work.

Grass Roots is just like a friend to me and so many people I know - keep up the good work.

Liz Walker & Family
5 Myrtle Grove
TECOMA 3160.

Feedback Link-Up Feedback

Dear Reader,

Would any people be interested in sharing our place in the bush? We thought that if we were patient, people would just turn up and we would have neighbours close by. Well, time has passed and nothing is happening – we know there are people looking for places and persons and this letter is an invitation to them to check us out. 'We' consist of a 39-year-old graduate ex-teacher building and tree-fanatic father and his 13-year-old daughter. We have 5 acres freehold and 15 acres leasehold, surrounded by 500 acres of state forest, within earshot of a good river, 10 minutes drive from a primary school, 40 minutes from high schools, and 90 minutes S-W of Melbourne. There is plenty of water, large area of fertile ground, 100-year-old fruit and nut trees, two small houses, numerous tools including pumps, tractor and implements, rotary hoe, truck, mudbrick press etc. and two or three very good possies for extra buildings. There is no electricity but we live very comfortably.

My time is spent here planting and landscaping our hill or working locally on buildings or gardens. My daughter, Abi, goes to high school in Geelong. She is currently very interested in boys, Culture Club, and the idea of having a horse instead of, or in addition to, her motorbike. We both get a great buzz from dancing to rock bands. I am prepared to build, or help build, more houses here and am open to any suggestions about how to sort out the sharing of the place. At present I am not seeking any sort of outside investment in land or buildings, but rather seek people whose lack of money, courage or experience has prevented them from starting a new life. We have had a lot of practice at bush living and would be happy to share what we have and what we know with other human beings.



Rod & Abi Parker
PO Box 21
MEREDITH 333
Ph: 052-861-331.

Dear Readers,

We eat a lot of soba in our house, buckwheat noodles, 80% buckwheat and 20% wheat. They are quite expensive. Would anyone have a recipe on how to make this healthy food.

Jeff Pinney
73 Main Road
HEPBURN SPRINGS 3461.

Dear GR People,

Please, could anyone supply some information on kookaburras and other native birds. I have recently found a young kookaburra pushed from its nest and would like to know how to raise it to be healthy and happy. Any information and hints would be appreciated.

Kim Bramble
PO Box 315
WAUCHOPE 2446.

Dear Readers,

Soon I will be working at Strathpine. I would like to share/rent a farm house in the Narangba, Petrie, Burpengary area. I am hoping to meet other people interested in the 'grass roots' style of living.

Joanne Connors
44 White Street
EVERTON PARK 4053.

Dear Grass Roots People,

I am looking for a woman to rent the bungalow on my one acre of land for \$30 per week, plus one-third SEC. I am a single parent with a 3-year-old girl and 13-year-old boy. We live on the outskirts of Cockatoo with our goat, chooks, ducks, sheep, cat, dogs and any other stray animals that happen to find their way here. It would be lovely to have someone to share my interests in house renovation, returning the old herb nursery to its former glory, and work as a gardener in the local area. Other interests include music and wanting to set up a craft stall at the local markets. We are trying to be self-sufficient but feel we would like someone to share and support our ideas and skills to make it all happen. If you feel you would enjoy being part of our family and its ventures please contact us.

Pam Crane
C/- Post Office
COCKATOO 3781
Ph: 059-688-316.

Dear Readers,

I wonder if you can help? I have been helping a family in the Phillipines who are very poor and have hardly enough food and clothes to survive on. The mother and father both have leprosy. They are now cured but have bad deformities. They live on a remote island where a vessel calls twice a month. They are in a sanitarium and have 10 children ranging in age from 4 to 24 years of age. The children who still go to school leave home at 5 a.m. every week day to walk to school and return at 4.30 p.m. They only get milk on special occasions and live mainly on rice and fish and a few vegetables when they can afford to buy them. They are a Christian family and the mother writes good English. She is worried about the children's education as she feels without it they have no future. She has to pay for tuition as the government does not support them in this area. She is always most grateful of any help and I try to send food, clothing and money on a regular basis. Parcels to the Phillipines are not to weigh more than 10 kg and sent surface mail they take about 2 months to get there. There are quite a few restrictions as to what can be sent, so it is best to go to the Post Office to find out all details.

If anyone can help by sending food, clothing, money or school supplies or even a letter I know they would be forever grateful.

The mother's name is Mrs Teresita Quinto
Cullon Laper Colony
Cullon Sanitarium
Cullon, Palawan 2913
PHILLIPINES.

Dear David & Meg and Grassroots Readers,

I was wondering if anyone could help me with information on starting a Worm Farm from scratch. I live in a residential area so I would need to know things such as ordour etc. All information would be greatly appreciated.

Glenn C. Cumbers
PO Box 110
UNANDERRA 2526.

Dear Reader,

I wish to embark upon a 'full-time career' as a potter. I have been making some income from pottery for a number of years. I am 32, an engineer by profession (involved in alternate energy) and have this year completed a Dip. Ed at Newcastle. My aim for the future is to do some casual teaching combined with pottery, aiming increasingly towards an alternative lifestyle. I am basically a self-taught potter and there is still much I want to learn, further I find the prospect of full-time pottery on my own too isolationist. Therefore I would like to work with a like-minded person or group, either already established and/or aiming that way.

I am flexible as to location. I have a house in Sawtell and would be happy to return there with a compatible person to move to a mutually suited rural location, or to become involved in an already established pottery.

Paul Wade
C/- 95 Hobart Road
NEW LAMBTON 2305.

Dear Meg & David,

I wonder how many of your readers have had to install a shepherd's crook over their solid-fuel hot-water system?

Faced with this prospect a few days ago we desperately sought an alternative to taking the pipe up through a vaulted stone roof.

The answer turned out to be simply a car radiator filler cap, complete with neck, from a discarded radiator soldered down to a short length of copper pipe, and fitted straight onto the tank just above the hot water outlet. What's more, it works!

Our friendly neighbourhood plumber suggested that whilst it might be illegal he saw no reason why it shouldn't work so 'give it a go'. Apart from giving the necessary safe blow-off pressure (you can buy a 7 lb radiator cap for \$3.50) the filler cap idea is a lot cheaper than 15 ft of 19 mm copper pipe, there is far less heat loss than would otherwise be the case from a column of hot water standing in a bare copper pipe. And the aesthetics of our stone wash house (more about that another time) are not cluttered with a copper masthead and guy wires.

Barrie Oldfield
'Cherwell'
DARRADUP via NANNUP 6275.

Feedback Link-Up Feedback

Dear Readers,

I want to ask if you have any proven ideas for preventing split ends using natural ingredients. My hair is extremely fine and I can't find a way to stop it from splitting.

Secondly, I will be travelling around Australia hopefully beginning in January and would love to meet and maybe help out other readers. If you send me your address I'd love it and I'll see you later in the year.

I have a quantity of scrap material that would be excellent for patchwork and costs only the price of postage to you, if anyone is interested. Lastly I'm restoring an old dressing table which has been coated with, yes, 11 coats of paint and I am now down to the last one. It's a matt finish and has soaked right into the grain. I feel I don't want to use caustic so close to the wood. Are commercial strippers OK? Any help would be greatly appreciated.



Bernice Hudson
1 Mimosa Street
ST HELENS 7216.

Dear GR Ladies,

Some say I'm hard to please. Perhaps so, but surely there is one warm-hearted vegetarian non-smoker out there. I am a youthful 40-year-old with a loving 11-year-old daughter and I am interested in ecology, conservation, tree growing, good music (preferably black – soul and blues), have a fine sense of humour and 5 lush acres at Murwillumbah. Circumstance has me in the city at present but, with luck, not for long. I am not remotely interested in organised games (sports) unless for very young children.

Having read loads and travelled world-wide I consider myself not dull. I rather fancy women of slight build – no offence meant. So if you are out there and can write, please do. All correspondence received will be treated with confidentiality and all will be answered.

Tony Douglas
62 Lower Dandenong Road
PARKDALE 3195.

Fellow Grass Roots Readers,

I feel that somewhere out there among the readers there must be someone in the same situation as myself who would like to correspond with me, maybe. I am a woman in my fifties, living alone. Three years ago I went through the trauma of divorce which left me financially not badly off, but emotionally depleted. It occurred about the time my family were all moving into independent lifestyles, so what had been my *raison d'être* for almost a quarter of a century was, in a short time, whipped out from under my feet. I have spent 3 years trying to make emotional adjustments, and with my new-found freedom and independence, trying to work out what my real values are and in what direction I want the rest of my life to go.

My first impulse was to get away from it all. I bought a home on 2½ acres in the country with all kinds of plans for going in for self-sufficiency. I could tell some funny stories about trying to manage Angora goats and other pitfalls that await the uninitiated city slicker tackling country living alone. I now have a yen to go back to the city. Horrors! I can hear the readers moan. But it's like this. People need something or someone to live for – or at least they need to share their ideals and aspirations with someone. I have always considered myself to be a spiritually oriented person but since I have lived alone, albeit in a beautiful, natural environment, I have felt less in harmony with my inner being, simply I think, because I have had no one to share the good life with. I feel lonely – terribly lonely. So I'm contemplating the geographic cure. Back to the rat race and slavery; where all around one sees slaves of habit, slaves of custom, slaves of authority, slaves of dogma, slaves of all sorts of laws which people live under, rather than live by. But even slaves are people and sometimes here alone in my house at night, I think maybe a life among slaves might be preferable to this life of isolation and aloneness.

So, if out there in *Grass Roots* land there is a fiftyish, intelligent, educated man or woman (I have had a profession and have a degree) who, like me, is lonely and wanting to explore the spiritual (not religious) and creative dimensions of their lives with another kindred soul, then I ask them please to write to me.

Kate Kennedy
PO Box 690
GEELONG 3220.

Dear GR Readers,

We are a young couple living on a sheep property on the Southern Tablelands. Since moving here from the city over a year ago we have learned many farm skills and have improved our capacity for a more self-sufficient lifestyle. We have lived here on a work-for-rent basis, and thus have been involved in all aspects of sheep management and have some experience with cattle. Our home has been an old, very basic slab-construction cottage which we have renovated to a very comfortable standard, mainly from salvaged materials. As from early 1984 our house is to be rented as a holiday cottage and we are looking for alternative accommodation. We hope to rent or lease a few acres of land with permanent water, good soil and plenty of trees. Our family includes two dogs, two cats and a goat and we would like to live anywhere we can grow a large range of vegetables. We own a caravan and would consider a work-for-rent basis but a written agreement is essential.

Geoff & Sue Keats
Post Office
TARALGA 2580.

Dear Readers,

As a spinner who likes to experiment with blends, colours and textures, I would like to obtain some Samoyed down – the brushings kept in a bag after grooming are best. I have approached many people with Samoyed dogs but they hated the thought of their dogs' coat being spun and worn and would rather burn or destroy it than have it used. I find it soft, light, warm and fluffy, completely odourless after one or two washes and it takes natural dyes well. I like it better than mohair. If anyone has some Samoyed they do not want I would be happy to pay a reasonable price for it.

Carolyn Davis
297 Woronora Road
ENGADINE 2233.

Dear GR,

I've been searching for a cure for a migraine-type headache I experience around the time of my period and mid-cycle. It seems to begin in the left temple and then travels to the back of both eyes. I've tried fenugreek and thyme but don't think it's due to a build-up of mucus. I am not under any stress; I'm a vegetarian and exercise daily. I find vitamin B help with PMT but not headaches. I've also tried willowbark tablets without success. Please, if you have any advice, could you share it with me.

S. McBain
4/34 Girrilang Road
CRONULLA 2230.

Dear Friends,

The pleasure I gain from reading *Grass Roots* is equalled only by the joy and tranquility of working in my garden. My daughter Jenny (8) and I are wishing to join a community or group of like-minded people somewhere in NSW. We have some capital and own the large caravan in which we presently live. We are simple earth-loving people with a concern for the future, not just for ourselves, but for mankind.

Jenny describes me as 'round, cuddly and crafty' (I think that's meant as a compliment). I can make almost anything I put my mind to and from the 'jungle' surrounding our caravan, appear to have 'green fingers'. Jenny is a sensitive, loving child with a gift for music. If you feel there would be a place for us in your group or 'family' or you know of a group seeking new members we would love to hear from you.

Sheridan & Jennifer Hollas
C/- Gaytime Caravan Park
BELMONT SOUTH 2280.

Dear Readers,

In answer to Isa Jones, GR 39, p. 92 re soap making. I have been making soap for some time now both for my own use and for craft shops, and I have found the most successful recipe is a castile soap – one from *Soap – Making it – Enjoying it* by Ann Bramson. I use this recipe for all my soap and add variations. A favourite one of mine is oatmeal and lemon (add 8 oz oatmeal and 4½ tsp of lemon oil just before it thickens). It looks and smells good enough to eat! I really recommend this book as it sets out clearly the basics to enable you to teach yourself how to do it.

Lynne Rowe
Hectors Gardens
PO Box 245
PORT PIRIE 5540.

Feedback Link-Up Feedback

Dear GR Readers,

There is a growing body of opinion, including some medical people, who regard vaccines as a health hazard. Just as the drinking of mercury or the taking of thalidomide are medical fashions of the past, so vaccination is a practice which could be discredited one day. Fluoride in the water supplies is even now being rejected, country by county, as a health hazard and an embarrassing mistake. Vaccination is sure to be a contentious debate of the future.

None of our family has ever been vaccinated or taken worming chemicals and we enjoy good health. On the other hand, some people who have been vaccinated have died soon after, some have suffered brain damage, paralysis and other effects. All have been subjected to a health hazard which is like smoking, or the eating of sugar, and the effects may not show for many years.

The *Vaccination Enquirer* was an English magazine I read some time ago and statistics indicated that although the incidence of many diseases had fallen at the same time as a vaccination programme was conducted, the incidence of the disease and the death rate was always highest in the vaccinated group. Most diseases seem to follow a cyclical pattern in an historical sense and the fall in the incidence of the disease was credited to the vaccine programme, whereas it would have happened anyway. Archie Kalokerinos, MD has also drawn our attention to the fact that most vaccination programmes have commenced well after the disease was in statistical decline and in some cases, had almost disappeared.

It is the same in personal health. We all have disease symptoms from time to time and the body tends to return to normality if we give it half a chance. Whichever practitioner we saw last (be it doctor, chiropractor, herbalist, acupuncturist, naturopath, faith healer, whatever) will generally be given the credit. Hence every school of 'healing' has its followers whereas credit is really due to the self-normalising powers of the body.

With regard to worms, may I say that I have kept horses, cattle, goats, dogs and poultry for many generations and have never wormed them. Occasionally worms have been found in their droppings, and our children had worms on and off for over a year until they vanished of their own accord. On the other hand, worming chemicals are known to damage the liver and other organs, *and the worms always come back*, hence worming is routine and therefore a routine hazard.

To arouse your suspicion of medicine in general you might like to read *Confessions of a Medical Heretic* by Robert Mendelsohn, M.D., published by Contemporary Books, Chicago ISBN: 0-8092-7726-3, still available from Angus & Robertson in Sydney as far as I know. The following books are available from the Natural Health Society of Australia, 131 York Street, Sydney 2000, and cover aspects of the case against vaccination. They may also have other books on the subject now. *Second Thoughts About Disease* by A. Kalokerinos, M.D. and G. Dettman, Ph.D.; *The Dangers of Immunisation* by The Humanitarian Society; *Vaccination the Silent Killer* by Ida Honorof & E. McBean.

Health is built, not bought. We can be only as healthy as our environment. Of course, I may be totally wrong and my most cherished beliefs may be all rubbish. How about *your* firmly held beliefs?

An Avid GR Reader & Admirer.

Dear Readers,

Are short fasts (i.e. 24 hour fast per week) hazardous to the unborn? If anyone could help me with advice or refer me to a good book I would appreciate it very much.

Could a glossary of common (or modern) names be compiled of products such as ammonia, borax, whiting (chalk?), washing soda, etc. Can these products be found in a general store with the titles they have?

Any ideas how to reform my partner and change his egg-bacon-chip diet, or at least keep it out of sight and odour range while I'm preparing my sprout and lentil dishes? My self-control has at times escaped me and I am starting to feel the bad effects.

Are there any recipes for home-made lemonade using honey (or another alternative to sugar)? All ingredients and quantities please.

Are mudbrick houses bushfire proof?

**Sue Vesnaver
11 Carrabai Place
BAULKHAM HILLS 2153.**



Dear Grass Roots Staff,

I had a good laugh when you published a letter from me in GR 37 telling how Kev and I were keen to find a farm and start living the good life again. My age was printed as 84 instead of 54 so the lack of replies would be due to most readers (potential advisers) thinking we were ready to plant with the cabbages. Anyway, since then we have found a beautiful little place of 64 acres between Cessnock and Wollombi with 50-odd of those acres hilly with big trees and rocks – great for Angora goats. Hence the application for Pat Coleby's book. The rest of the place has a permanent running creek and the soil is great for growing things. It also has a solid 20-year-old home with a good combustion stove. Great eh? After a couple of misleading and disappointing ads it was great to find this place. Now it's all excitement and planning while waiting for the papers to go through. All the reading of your magazines and books will be put to good use.

This is really a 'thank you' letter for the pleasure and assistance I've had from reading the fruits of your hard work at the *Grass Roots* office. Some day I may be experienced enough to help out some other bumbling souls like us who yearn for an honest satisfying life close to nature.

**Lettie Owen
Box 43
BARRABA 2347.**

Dear Lettie,

Please accept my sincere apologies for the discrepancy in your age. I can imagine how you felt when you read it. Some of these things do slip through – just think, you may not have ended up with your 64 acres which sounds terrific, if we had been more accurate. Good luck anyway. Let us know how you progress when you are settled.

Meg.

Dear Horselovers,

Jackson is a beautiful black thoroughbred gelding who is available for permanent loan to a loving family who lost their horse in the fires. He's quite tall at 15.2 hands but very quiet and gentle. He is not for loan to any but a family who can't afford to replace their horse lost in the fires. Please, only genuine enquiries.

**Lindy Belcher
RSD NARINGAL EAST 3277
(Near Warrnambool)
Ph: 055-662-306.**

Dear Co-workers of the Grass Roots Magazine,

I am at present studying agriculture at the Agricultural University Kassel/Wickenhausen. Before starting studies I was working at different conventional farms for about five years. I am extremely interested in learning about organic farming and would very much like to work on an organic farm in my practice term from approx. August or September 1984 to about January 1985. I am particularly interested in the production of organic crops but also would be keen to learn of milk production on a dairy farm. I know that farming in Australia is very different from Europe and it will be difficult to find a job in this line of agriculture. If you are able to help me I would be very thankful and will answer all letters.

**Richard Dannes
Am Sande 1 Zi. 4
3430 Witzenhausen
WEST GERMANY.**

Dear Readers,

Re Gail Smithton's enquiry in GR 38 about vegetarian soap. Here is a recipe from *The Art of Soap Making* by Marilyn Mohr. Take 2 cups coconut oil or 100% solid vegetable shortening, ¾ cup cold soft water, ¼ cup caustic flakes. Melt coconut oil until liquid but not too warm. It has a very low melting point so don't heat unnecessarily. Add caustic to cold water stirring to dissolve. Grease moulds liberally with petroleum jelly. When caustic and fat are cooled pour caustic into oil stirring constantly. This recipe takes a long time to saponify – up to 1 hour. It is not necessary to stir for the entire time but keep it well mixed as it thickens. When thick, pour into moulds. It sets very slowly. After a day it will be firm but may not be hard enough to use for several weeks. Approx. yield is 2¾ cups liquid soap or 1½ lb hard bar soap.

**Lorraine Davis
8 Walton Heath Cres.
MOUNT WAVERLEY 3149.**

Feedback Link-Up Feedback

Howdy Neighbours,

Maria Lissenburg (GR 38) wanted to know a way to clean a sheepskin jacket without having to dryclean it. Here is a method I sent to her and would like to share with the rest of you. I launder leather garments in my washing machine using regular laundry detergent, cold water and one cup of salt. This method works with either napped or smooth leathers, and the only problem I've encountered is that some dyed skins bleed into their linings. When the garment dries, brush it lightly or if it's lined, steam press it – inside out – at the lowest possible setting. This tip came to me by way of *The Mother Earth News*, No. 81, p.192. There are more tips on caring for leather and other natural clothing material in No. 77, p. 92.

Lance Raftery
143 Paddington Street
PADDINGTON 2021.

Dear People,

Although there's still a lot for us to do to reach our aim we've at least started by getting away from the city and closer to the country. We're now living in Geraldton, about 500 km north of Perth. We're looking towards building our own stone house here one day, but for the moment we are living in the heart of the town but with access to a goat stud farm nearby. We are starting a herb garden. Life is certainly much more easy-going and we relish any occasion of meeting with other down-to-earth people. Along with a variety of herbs and nutritional plants we are wondering about growing some buckwheat but have no idea how the outside husk is removed. Does anyone know or have any ideas?

Deb, Jim & Simon
27 Sanford Street
GERALDTON 6530.

Dear Fellow Readers,

Is there someone who hates suburbia and our immediate environment and would like to live and survive on an island in the Capricorn Bunker group in Qld. That's where I'm going and would like the company of a similar soul. I'm 29, my interests include music, tarot, meditation, dowsing and animals. I'd like to hear from anyone who lives, or has lived, on these islands and has suggestions or advice. I'd like to hear from any free-spirited, adventurous women.

Pam Griffin
4 Blair Road
BELGRAVE 3160.

Dear Friends,

My husband, myself and two little girls (3 years and 7 months) are eager to escape city life and as we have little money for the land we hope there is a GR family interested in buying land here in WA with us. We are thinking about Bridgetown or Albany areas but are open to suggestions. We love Denmark but it is so expensive. We have just spent a week of frustration searching for our little farm. We want 10-20 acres or more and something to live in and we have only \$20,000. We thought that we could pool our money and borrow an extra \$20,000 between families to buy something nice and to do extra building. Anyone who thinks they may be interested can write to us for further details.

Karen & Francis
148 Sanford Street
GERALDTON 6530.

Dear Grass Roots Readers,

I've just discovered your very interesting magazine – I've wanted to move onto the land for long time now. I live in the suburbs and hate it but, until now, could not really see how to change things. I'm 32 and a full-time student (so funds are limited) and what I'm hoping is that perhaps a reader either has a property, or maybe knows of someone who has land, with a cottage (it needn't be flash), who would be prepared to rent it to me or allow me to caretake in return for rent. I love the Adelaide Hills area especially and it would need to be in commuting distance of the Institute of Technology in the city. I'd like to have animals of all kinds and a garden that would hopefully lead to almost total self-sufficiency in those areas. I'm a single person with no dependants; I'm not afraid of isolation and I'd take care of the property. I'll be waiting anxiously hoping that somebody, somewhere can help me.

Wendy
C/- 55 Woodyates Ave
SALISBURY NORTH 5108.

Dear Grass Rooters,

I read in GR 39 of people giving away their boxer dogs. I too, have a boxer with an allergy (wandering Jew and paspalum) which is quite easy to keep under control. She is on a diet of chicken or rabbit with vegies, brown rice and coconut (for oil). When she breaks out or starts getting red I give her Betsolan tablets (from the vet) and wipe her over with ice-cold water and carb soda (one cup water to one tsp soda). She responds very well to this treatment. It also helps to keep her clean with regular baths. It would be a shame to have to give away two beautiful boxers. I could never give my Snuff away no matter what afflictions she had.

Julie
256 Great West. H'way
WARRIMOO 2775.

Dear GR People,

I am writing in the hope that somebody can help with recipes/information on soap, bread and winemaking, also herbs and preserves. I would appreciate any information or advice. As I live in a Qld country town I am having difficulty in obtaining help. I am greatly interested in your lifestyle and would be pleased to learn anything at all about a semi-self-sufficient lifestyle.

Katie Hammond
62 Galah Street
LONGREACH 4730.

Dear Readers,

We are a young couple with two kidlets (3 and 2). We hope that March/April 84 will bring a transfer of employment for Graeme to Gippsland (Morwell region). We are interested in self-sufficiency and hope to eventually buy a few acres, build a log cabin, and have our own little farm. Our main objective is to have enough room for the children to play freely and to house all the animals our littlies desperately want. Our problem is finding somewhere to live till we've saved enough for some land. We hear that renting is nearly impossible around this area and we don't want to rent a house in Morwell if we can possibly avoid it. Perhaps someone has an old farmhouse in the surrounding area we could rent for a while. We'd be prepared to do minor repairs or tend animals and gardens. We have no animals at present.

Graeme, Merrill, Robin & Nikki
48 Beech Street
LANGWARRIN 3910,

Dear Folks,

Unfortunately I am forced to be a city slicker for a time yet but am a grass-roots person at heart. I have just moved into my own house and would like to share it with two Christian ladies who are interested in herbal medicine, healthy living, and developing a reasonable level of self-sufficiency. We can have chooks and I want to build a special hothouse to provide abundant vegies all year round. The house does have a few modern trappings such as a dishwasher, air conditioning and a huge swimming pool. If you would like to become involved in the above ideas please write.

Ian Hacon
86 Altona Street
HEIDELBERG HEIGHTS 3081
Ph: 03-458-3626.

Dear People,

I have some requests that someone may be able to help me with. (1) Does anyone know of a cure or treatment for heartworm in dogs besides the standard treatment that the vets prescribe (that of giving them a course of injections etc). We have a corgi with heartworm who is eight years old. I did read of a treatment using Thymol (oil of thyme) in Juliette de Bairac Levy's animal herbal book, but would be interested to know what else there is. (2) Does anyone know of any Crown land in the Wyee/Newcastle/Hunter Valley area for leasing? Has anybody had experience in leasing land and building on it? How do you go about it? (3) Does anyone know of stores or co-operatives in the area around Newcastle or Sydney where you can buy in bulk things like dried and fresh fruit, grains, flours, cooking oil etc? I will answer all letters and look forward to hearing from some of you.

Maree Williamson
Martinsville Road
MARTINSVILLE 2265
Ph: 049-771-148.

Feedback Link-Up Feedback

Dear Grass Roots,

An exciting turn in my life has prompted me to write in the hope that others may be as lucky as I am in finding my dreams – they are at last a reality.

It's some time since I put pen to paper to you all and many things have happened that I feel I must share. I left the distractions of city life behind me three years ago and collected my kids together and 'went bush'. As a single parent I knew it would be hard and it certainly has been. However, I succeeded in renovating a shack by the river here in the S-W of WA, grew vegies, learned about herbs, milked my cow and became aware of myself and grew in harmony with nature. Then in January 1981 the floods came and we were badly affected and were evacuated after a terrifying ordeal.

To cut a long story short, we moved into town to drier pastures and now rent a small house. It has suited me for a while and provided a breathing space but my heart has always been in the bush. Then I heard that it was sometimes possible to acquire a long lease on Crown land. So I pursued the idea and after a long wait and several trips to the Lands and Surveys Department in search of something suitable my application was successful and I am now elated to tell you all that I have a 10-year lease on a beautiful block of land adjoining state forest for only \$70 per year.

All my Christmases have come at once. There are a few conditions to the lease the main ones being that I occupy it within nine months; that I fence it off within 12 months. The lease can probably be renewed after the initial 10 years. I am absolutely thrilled with the block and can't wait to start to build.

I would be grateful if you could print this letter so that others who are longing for the freedom of their 'own' block can find hope and inspiration from my good luck. So to those of you who are dreaming of a down-to-earth situation – go for it. Dreams can become reality. If anyone would like to write to me for more information I would be pleased to pass on anything that would be helpful.

The perfect ending to this would be for me to find a sincere partner to share it all. There must be a guy somewhere in WA who would be interested in living and loving with a lady who is into a more self-reliant way of life in a peaceful setting. If so drop me a line – I'm single, hardworking, and have a 14-year-old daughter. Any offers? Or am I asking for too much?

Gloria Dunn
C/- Post Office
BRIDGETOWN 6255.

Dear People,

I need to meet other people who have 6-year-old kids, who would be interested in forming a community where we could have alternative education and all the other things that go with an alternative lifestyle.

Ruth Every
C/- Post Office
HERBERTON 4872.

Dear Grass Roots Friends,

My boyfriend and I moved here to Katoomba a few weeks ago and we want to meet genuine people with similar interests. We enjoy music (both are musicians) and self-sufficiency. If you would like to meet some peaceful new friends please contact us.

Lisa & John
1 Dora Street
KATOOMBA 2780.

Dear Neerim Readers,

For the past seven years we have been developing a thriving vealer mini project on 25 acres at Neerim South in West Gippsland, Victoria. At the same time we have developed a native plant garden, fruit trees and vegetables. We are in reasonable accord with our dairy-farmer colleagues as our pastures are clean, fences good and stock cared for and healthy. Nevertheless, we also find the long-term farmers conservative and rather reserved. It occurs to us that in this area there must be many more small land holders developing small farms, self-sufficient or alternative lifestyles. Our aim would be to contact people in this area with a view to a loose information-sharing and personal contact system, in time possibly, via a local newsletter approach. We would be interested to hear from people in this area who find this idea appealing.

Annette & Tony Holland
17 Pentland Court
GLEN WAVERLEY 3150.

Dear Grass Roots Readers,

Having lived and worked on our beautiful mountain valley co-operative and farm for 10 years, I am now temporarily in Melbourne adjusting to a separation from the father of my children (Aminya 3 and Bonny 7 months). Rather than live alone with the children or look toward finding another partner for a nuclear family set-up I am hoping to form an extended family of some kind with like-minded people. Are there any such people – single parents with children, families with open heart, or elderly people wanting to live in younger company, who would like to meet me with a view to becoming acquainted enough to design and build semi-communal quarters on our property? Co-operative membership would, of course, be dependent on acceptance by the other members and payment of minimum share. Please write to me.

Fiona McIlroy
3 Marks Street
BRUNSWICK 3056.

Dear Readers,

I am writing to you in desperation. I am 6½ months pregnant and feel that I cannot possibly handle a hospital birth for our second baby. Our area is Wiseleigh-Bruthen out Bairnsdale way. For some reason doctors and nurses agree with homebirths but wouldn't think of assisting at one. To an experienced midwife we can offer free accommodation in a self-contained caravan and partially finished house and any pickings she wishes from our vegie patch. It is a great feeling to be out in the country where the air is fresh and the water clean. We already have six horses, a dog and, by then there will be ducks and geese. Drugs and cigarettes we cannot handle – alcohol in moderation would be OK. We don't eat red meat and only very occasionally do we have white meat so that would be left up to you. We would supply beans and grains. Whoever you are, wherever you are I pray you want a holiday as much as we need you. We don't have any particular religion – we just believe in God. Hope to hear from you soon so that we can spend as much time as possible getting to know each other. Well-behaved children welcome. Thank you for listening and hope you can help.



Jenny Steve & Carly
C/- Post Office
WISELEIGH 3885.

Dear Grass Roots,

We would like to hear from anyone with information on obtaining and growing blueberries.

Annie Wolff
Glens Creek Road
NYMBODIA 2460.

Dear Readers,

We have a sheep farm in the Western District of Victoria. We have a number of merino sheep which we would prefer not to sell for slaughter but allow to live out their time. However that is difficult for us to arrange as the farm has more sheep than it can continue to cope with. Are there any readers who would like 5-6-year-old merino wethers which are still excellent sheep or 3-4-year-old merino rams. Some are pedigree 'Trawalla' rams. Others are young ones we bred ourselves. We are not asking full market price and believe we could work out prices/gifts with people as they approach us.

We would also like to hear from people who may be interested in buying 18-month-old, well-bred, well-cared for (i.e. organically) lambs from our farm in the next few years and people who have had experience in trying to raise sheep/animals in more humane ways. We don't ear-tag, vaccinate or cull. However we still find ourselves drenching, crutching, castrating, tailing and dipping. We are trying to find ways of being sheep farmers but not just treating our sheep as 'agro-economic units'.

Rob Lewers
'Hoyle's Creek'
Mannibador
via LINTON 3360.

Dear Readers,

Does anyone know where I can obtain a copy of the book titled *The Link* by Matthew Manning?

Rosi Ladner
23 Park Street
BRIGHTON 3186.

GRASS 14 ROOTS

AND A GRASS ROOTS CULTURE

Sources and Symbols in the Back-to-earth Lifestyle

by Lolo Houbein, Bridgewater, SA.

Recently, while reading an article on antique Asian kitchenware and porcelain, I was intrigued by the suggestion that there is a balance between a culture's sources and symbols. This results in the formation of new sources, and finding out which elements maintain the balance is the way to understand the function and purpose of a society.

I tried to apply this to the grass roots society. I felt that its purpose was clear, though its function somewhat rambling, and that there was no doubt it had its source in dissatisfaction. Grassrooters weren't driven out by war, famine or religious persecution, although a level of scorn in mainstream society about 'new' religions and exotic philosophies may have encouraged many to seek a more isolated and independent existence in the country.

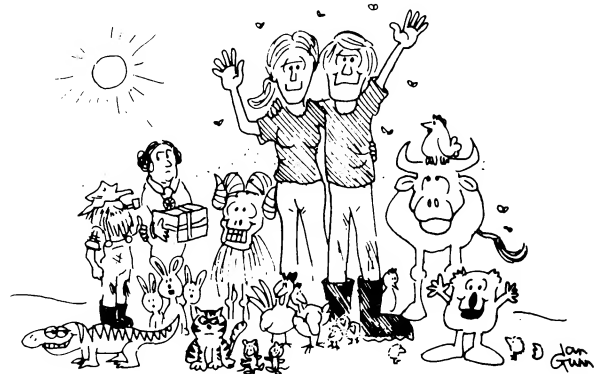
I wondered whether there was a symbol that stood for the grass roots philosophy, just as the peace sign ☮ stood for the peace movement of the seventies, or the yin-yang symbol ☯ stands for the equality of contrasting elements in the totality that embraces all existence. But it's hard to think of any tool, animal or object that would identify to others the grass roots way of life, although handtools, donkeys and mudbricks are all contenders for the honour.

Yet grassrooters are recognisable by a multitude of things: dress, preferred topics of conversation, hairstyles and skin, food, dwellings and their contents, transport and music. Perhaps if any of these survive our lifetime they will become sources for those who come after us, and music may well have a head start, with food a close second.

Much of what we use, is not grown at home, but borrowed from other cultures. Many of our clothes come from Asia, and we copy Asian styles for their adaptability and the freedom of movement they allow. Many of our health foods are also Asian in origin (beansprouts, tofu, and some vegetables and condiments), and the Indian influence on music is undeniable.

But where the grass roots movement has really done its own thing is in the use of local materials. Wool, mud and stringybark have given shape to articles and structures that will survive the people who made them. The use of natural dyes, especially those from native trees and plants, give homespun wool a unique quality which may well stamp some coats and ponchos as family heirlooms. Mud dwellings and outbuildings are adapted to the Australian climate. Local woods are used more and more for small articles that can be fashioned from branches and thinnings, such as bowls, buttons, handles and small pieces of furniture. Because of Australia's shortage of trees we must hope that less and less wood will be used for large items such as houses, unless the wood is specifically grown for that purpose or the felling will benefit the forest (thinning to encourage growth of larger trees).

So far then, our symbols are materials and, as our source is dissatisfaction with the manufactured life of big cities, it can



be expected that grass roots people will turn increasingly towards their natural environment for what they need. From

So far then, our symbols are materials and, as our source is dissatisfaction with the manufactured life of big cities, it can be expected that grass roots people will turn increasingly towards their natural environment for what they need. From that the more recognisable symbols will grow, perhaps more so when grass roots children extend the use of the materials they have grown up with, without having to consult a book as their parents had to do!

I suppose the symbols of Australian city life are now the television/video screen and the pocket calculator, neither of which lend themselves to be reproduced on kitchenware that will stand the test of time, or look enchanting when embroidered on pillowcases! Australia's country people largely established themselves by wheat and wool but, although a ram's head sometimes appears as an emblem on consumer items, there is no trace of the wheat ear woven into cloth or used as decoration on pottery or furniture.

In old Asian weavings one finds symbols — abstract or quite pictorial — which stand for happiness, long life, wealth, marriage, birth and rebirth. There are colours which mean joy, death, mourning and good fortune. There are shapes and styles which go with certain occasions, and foods which are eaten only at special ceremonies or on specific days.

Are any such usages beginning to stir in the grass roots society? Are there regions where a blend of grass roots lifestyle, climate, and the influences of an earlier established community have given rise to elements which strike a balance between sources and symbols, and are likely to become identifiable with the functions and purposes of the grass roots movement?

Are there any grassrooters who have developed recurring rituals in their new lives, or who prepare and eat certain foods on certain occasions, wear special clothes on special days. (And if so, why are those days so special?) Any celebrations of the first rain, the end of the harvest, summer solstice, the equinox, new moons or full moons? If so, tell us about it so that we may all know what sort of history we are making by having returned to the earth!

FIRST AID FOR SNAKEBITE

Dr S. K. Sutherland, Parkville, Vic.

SOME FACTS ON SNAKEBITE

- Even though not all snakes are venomous it is best, from a first aid point of view, to consider all snakes as dangerous.
- Sometimes no venom is injected, even if puncture marks are present.
- At least 95% of bites occur on the limbs. Perhaps 75% involve the lower limb.
- The venom is injected quite deeply. It was shown many years ago that very little venom is removed by incision or excision.
- Recent research has shown that very little venom reaches the blood stream if firm pressure is applied over the bitten area and the limb is immobilised.

Therefore rational first aid is:

1. Immediately apply a broad firm bandage around the limb and on the bitten area. It should be as tight as one would bind a sprained ankle. As much of the limb should be bandaged as is possible. Crepe bandages are ideal but any flexible material can be used, e.g. tear up clothing or old towels into strips.
2. Keep the limb as still as possible. Bind some type of splint to the limb, e.g. piece of timber, spade, any rigid object.
3. Bring transport to the victim whenever possible.
4. Leave the bandages and splint on until medical care is reached.
5. Bites to the trunk. If possible apply firm pressure over the bitten area. Do not restrict chest movement.
6. Bites to the head or neck. No first aid for bitten area.
7. The measures outlined have also been shown to retard the movement of sea snake venom.

Don't cut or excise the bitten area.

Don't apply an arterial tourniquet.

Don't wash the bitten area. The snake involved may be, identified by the detection of venom on the skin. If the snake can be safely killed bring it into hospital with the victim.

HOW TO AVOID SNAKEBITE

1. Leave snakes alone.
2. Wear stout shoes and adequate clothing in 'snake country'. Do not wear sandals or thongs.
3. Never put hands in hollow logs or thick grass without prior inspection.
4. Always use a torch around camps and farmhouses at night — most snakes are active on summer nights.
5. Keep barns and sheds free of mice and rats as they will attract snakes.
6. Keep grass well cut — particularly in playgrounds, etc.

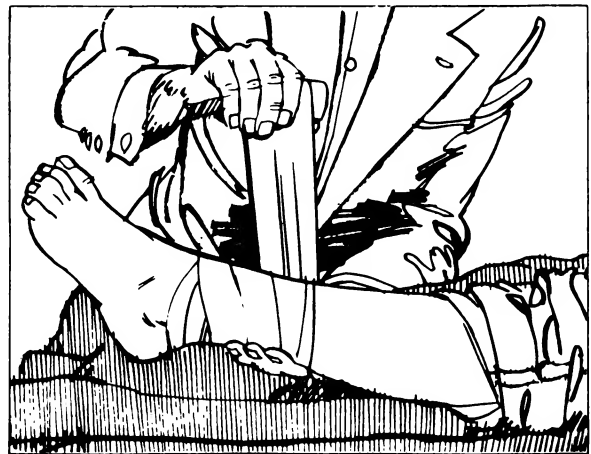
SPECIAL NOTES RE CHILDREN:

1. Never let children collect snakes.
2. If a young child says he or she has had contact with a snake, please believe them.

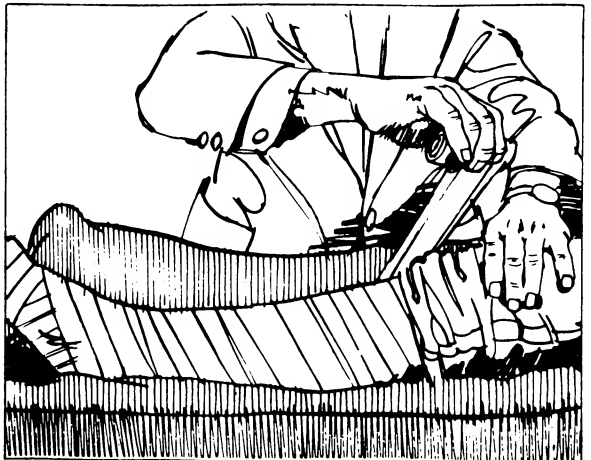
The following diagrams show the recommended first-aid procedure for snakebite of the lower limb.



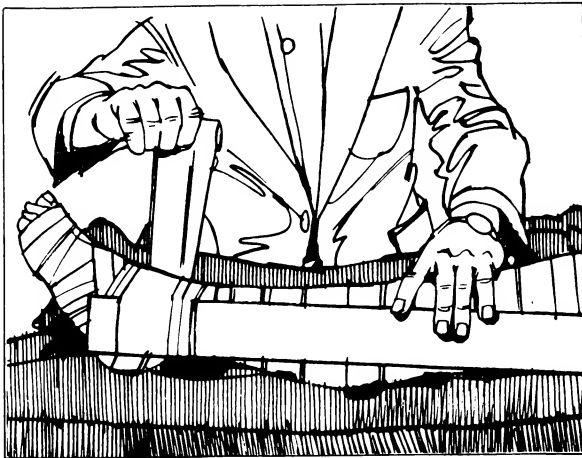
1. Apply a broad pressure bandage over the bite site as soon as possible. (Don't take off jeans as the movement of doing so will assist venom to enter the blood stream. Keep the bitten leg still!)



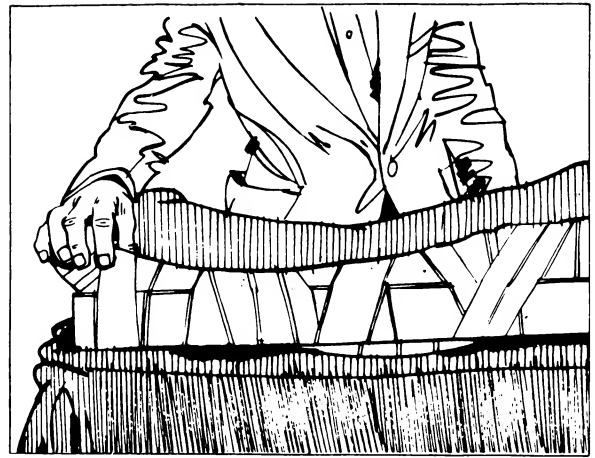
2. The bandage should be as tight as you would apply to a sprained ankle.



3. Extend the bandages as high as possible.



4. Apply a splint to the leg.



5. Bind it firmly to as much of the leg as possible.



Bites on hand or forearm. 1. Bind to elbow with bandages. 2. Use splint to elbow. 3. Use sling.

If the bandages and splint have been applied correctly they will be comfortable and may be left on for several hours.

They should not be taken off until the patient has reached medical care. The doctor will decide when to remove the bandages.

If venom has been injected it will move into the blood stream very quickly when the bandages are removed. The doctor should leave it in position until he or she has assembled appropriate antivenom and drugs which may have to be used when the dressings and splint are removed.

Reprinted from *First Aid for Snakebite in Australia* by permission of Dr S.K. Sutherland, MD, FRCPA, FRACP, Head Immunology Research, Commonwealth Serum Laboratories, Parkville 3052.

Take Care! Poisonous Australian Animals by Dr Struan Sutherland is a book designed for children under 12, although it would be of value to adults also. There is information on 16 poisonous snakes, spiders and fish found in Australia with excellent identifying photographs, and maps showing where they are to be found. The introductory chapters give first aid advice for bites and stings. Available from Hyland House Publishing Pty. Ltd., 23 Bray Street, South Yarra 3141, RRP \$7.95.




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A STORY, A STORY

One Alternative to the Ubiquitous Telly

by Maureen Leslie, Yea, Vic.

One of my most distinct and pleasant childhood memories is of summer evenings when my brother and I were waiting for Dad to come home from work. It was wartime, with daylight saving. Mum would bath us and have us ready in our pyjamas and dressing gowns to meet Dad after he had been working overtime. At about 6.30 p.m. we were allowed to race around the block, grab one of Dad's hands each, and run home together. Afterwards we would help him unload his bag, and the greatest treat of all was to find in it a big book of fairytales which he had collected from the old Sydney Municipal Library on his way. There were no children's libraries in those days, not where we lived anyway, and what municipal libraries there were had dreary out-dated books with nothing suitable for children. Of course during the war even the big Sydney City Library couldn't get in new stocks of books, so most of those read to us were huge musty-smelling tomes, with loose yellow pages, dark moth-eaten covers and, wonder of wonders, exquisite coloured illustrations in the Arthur Rackham style.

While Mum prepared Dad's tea and put the current baby to bed Dad would read us a story, the memories and delights of which have stayed with me always. We had, of course, Grimm's and Anderson's fairy tales, nursery rhymes, King Arthur, Kipling's 'Just-So Stories', and many more folk tales and picture story books as these became more plentiful at the end of the war.

So pre-bedtime became associated in my mind with warmth, cuddles, affection, and romance and excitement in the other worlds to which our parents conveyed us through their story readings. When I grew up I was astonished to find that everyone else had not had similar experiences, which I had taken for granted. I resolved that my children should be given the same pleasures, even though by the time they started to arrive in the early sixties the telly was a very real rival.

Whenever I took my first baby, Brian, to the clinic in his pram we would call in at the library next door on our way home. Along with my own books I would choose for him, after he was about one year old, an animal picture book, a book of photos of everyday things, or something with bright colours and very little text, like the Dick Bruna books. When we arrived home he would sit on my knee and we would look at it together. At first I would point out and name the things in the book, but as he grew older *he* would tell *me* all about it. So by the time the red-letter day of his third birthday arrived and he was to have his very own library card, the excitement was great. He could choose his own library book, which he did most successfully and perceptively.

I always encouraged the children to choose their own picture story books, even if they were not to my taste. I found that even very young children soon developed an ability to choose something suitable to their ages and interests. The

fastest way for them to learn that a book was 'too old' or 'too young' or 'boring' or 'mediocre' was to bring it home and have it read aloud. They rarely made the same mistake twice. They also educated me, by introducing me to stories that I probably wouldn't have bothered with otherwise, which turned out to be very satisfying. In fact years later when I was studying children's literature during my librarianship course, I found that I already knew through and through most of the young children's fiction which we, as future teacher-librarians, were expected to introduce to our classes.

Well, reading Brian a story every night was fine when there was only Brian. But by the time he was three, there were also Jeremy and Michaela, and by the time he was seven, Martin and Dominic had arrived too. Obviously, what was suitable for an 18-month-old would not be terribly exciting for an 8-year-old, so we gradually worked out a method which we hoped would suit everybody.

The pattern of sitting down together in the lounge after tea for a story was already established. When there were only two or three littlies and we could get through one picture story book per night, we took it in turns to choose — one child would choose the story for tonight, another tomorrow, and so on, and then Mum or Dad would have a choice. The chooser always sat next to the reader, and turned the pages. In one week we might have some nursery rhymes one night, *Peter Rabbit* the next, *Petunia the Silly Goose* the next, and then *The Elephant Child*. So when the wail of 'Oh, I already know that one!', or 'That's baby stuff' came up, we overcame it by pointing out that the baby would have to sit through a story that was much too hard for him to understand tomorrow night. Thus a little patience and tolerance for others' tastes was developed. In fact, once the story started, even the most sophisticated cynic among the oldies would gradually become interested and join the listening circle.

This worked the other way too, as the children grew older. As the older ones approached their teens, they wanted serials or long folk tales which would often take many nights to finish. So we compromised by sometimes having a quick nursery rhyme or poem or a short picture story book before starting on today's episode of the current serial. Usually the little ones picked up the gist of the long story even if they didn't understand all the words. This way we read through *The Hobbit*, and, by popular demand, the entire *Lord of the Rings* trilogy, *Alice in Wonderland*, *Treasure Island*, *Wind in the Willows*, *Seven Little Australians*, the Mowgli stories, *The Magic Pudding* and *Storm Boy*, as well as many more short novels and new books which the children brought home from school, and innumerable collections of myths and legends from all over the world.

I must admit that sometimes I cut down long descriptive passages or unnecessary detail, particularly in the older

books. Sometimes, too, the big ones would read a story to the little ones. This was particularly good when they were just reaching the stage of being able to read 'a big book all by myself'. They would feel very proud of themselves.

Certainly the TV has at times been a strong rival, and when I was very tired, it won. But as a general rule, we tried to read through the programme guide together at the beginning of the week and mark the 'essential' programmes. If we simply couldn't live without 'Dr Who' followed by the news, then the storytime would be either before tea, or at 7.30 or 8. Sometimes I would read to the children while they were doing the dishes, or in the bath, or in bed. While the children were little, however, we found that just before bedtime was the most successful. A story reading seemed to have a calming effect, and we never had any trouble getting them to sleep.

We noticed some other positive results from regular story reading (or telling). All the children had a very well-developed spoken vocabulary at an early age, and this of course was a great help to them when they started reading at school. We rarely consciously taught them the meanings of words. Usually I would read through a story from beginning to end without a break, particularly if it was exciting, or had a musical lilt which would have been spoiled by frequent stopping. However, sometimes if I noticed in advance that a story or rhyme had a lot of unknown words, I would explain some of them before starting. If the children found anything difficult to understand they would stop me and ask the meanings of strange words, but more often they were able to guess them from the context. Some stories, of course, lend themselves to continual stopping for discussion, which can often lead on to quite unexpected areas.

All the children, except one who is dyslexic, have become avid readers, a joy which I am sure will enrich their entire lives. Strangely enough it is the boy with the reading problem who has benefited most from stories. He loves hearing them and has memorised many from an early age. He has an excellent vocabulary, which his teachers say has been a great help to him in coping with the abnormally difficult task of learning to read.

We also found that stories were an excellent way of introducing moral values. There is no need to preach at kids when folk tales have a much more exciting and imaginative way of putting across ideas which you want them to grasp. I would suggest that you read accurate translations of the original folk tales, and not Disney-type adaptations, which have often been so bowdlerised that they have lost most of their real meanings. I am certainly not advocating the reading of moralistic books. Children, with their acute perception, soon see through these, but values which are conveyed incidentally through the behaviour of their heroes and villains are absorbed easily.

Good children's books are great fun, and have a way of permeating the whole of family life. Our children would often compare things that happened at home or at school with incidents in stories they had heard. Books are a great source of pets' names too. Our first two ducks were Ping (from the book about a duck on the Yangtse River, by Marjorie Flack), and Jemima (from *Jemima Puddleduck*, by Beatrix Potter). When we acquired our first cat — a female who we suspected

was pregnant — Brian had just finished reading *Charlotte's Web*. He suggested that, since Charlotte was such a good mother, our cat should be named after the original Charlotte, even if she was a spider.

From the time they learned to read for themselves, our children started sharing their reading experiences with us. It's great to remember the breathless rush in from school, eyes agleam with crusading zeal, frantically unlatching the school case: 'Mum, Mum, you just *have* to read this book!' after the first discovery of Colin Thiele, or Tolkien, or Leon Garfield. Now that they're mostly grown up we still share books and discuss our newest discoveries. Round the fire at night or at the tea-table we sometimes read a paragraph or two of something that is currently enthralling. (*Grass Roots* ideas and articles are often disseminated in this way.)

Life has a way of throwing up difficulties, disappointments, and what sometimes seem like insurmountable hurdles. Our family has certainly not been immune to its fair share of these, and even during childhood our children have had to face considerable problems. We felt that every positive and affirmative attitude and memory that we could give would help them to find the courage and security to weather the storms. Reading aloud together has been one of the ways we have tried.

For other alternatives to TV, see Kathryn Linsket's article on p. 17 of the *GR Family Book*, and other articles in the same book.

Maureen Leslie has written *Educating GR Children* (No 32), *Softly Softly, a gentle approach to sugar* (No 35), and will have an article on selecting books for children in No 42. She will be a guest speaker at the Organic Gardening and Farming festival in Tasmania on March 3-5, where she will speak on educational and organic methods and philosophies (see p. 34).

Organic Growing

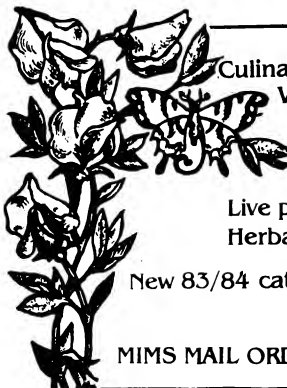
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HOMOEOPATHY FOR CATS

by Alison Inch.

Why homoeopathy for cats? Perhaps this seems to some of you to be taking things a bit far — ‘humanising’ animals so to speak. Yet consider the facts: many people keep cats, and the only responsible thing to do is to maintain them in health and treat them if they fall sick. The homoeopathic system of treatment works just as well on cats and dogs as on humans — and why shouldn’t it? The basis of homoeopathy, the law of similars (like cures like) surely does not change, so why should not all living creatures respond to its effects?

Homoeopathy is a very satisfactory method of healing. It does no harm, unlike some modern drugs, and is usually remarkably effective because treatment is based on an individual’s symptoms, rather than these symptoms being categorised to fit some particular named illness. As everyone who keeps cats knows, they are most individual creatures, with markedly different personalities and temperaments.

Should your beloved mouser be looking a bit below scratch, first check out some general health measures. Does he have fresh clean water available at all times? If he must stay inside, does he have a clean litter tray, changed regularly? Is he fed regularly on a varied diet? Meat, fish, poultry, eggs, milk, cereal and vegetables are all suitable foods. Tinned or dried foods can make an occasional change, but be absolutely sure to have plenty of water available if giving dry food. There are people who do not feed their cats, saying the cat will catch plenty of mice and rats. Perhaps this is true — but what about birds, and native marsupial mice? Some of Australia’s smaller animals have become extinct since the white man introduced European animals.

If your cat is a fully fledged tom, chances are, if it hasn’t happened already, that he’ll come home one day sore and sorry from a fight — if he comes home at all, that is. And he’s liable to be a wretched nuisance, spraying offensively wherever he thinks there might be a possibility of a dewy-eyed lady cat. Female cats should be spayed as soon as they’re old enough, unless you’re breeding them. There are far too many adorable kittens dumped on unwilling recipients, or the rubbish tip. And consider the money spent on pet food. If Australians spent as much money on overseas aid as they do on pet food the world might be a better place.

Having said a bit for ecology and the state of the world, we’ll assume you are having your cat neutered. To help it over the initial shock of the operation, you can give a few doses of Arnica Montana 6.

Even the most highly bred sophisticat is guilty now and then of the occasional flea. Take the normal precautions, such as dusting with flea powder regularly, and providing clean bedding. Homoeopathy can help here: one dose of Sulphur 200 once a week for three weeks seems to discourage fleas. As fleas can carry tapeworm and other diseases, it is worth keeping your cat free of them — especially if children handle the animal.

Worms are a very common problem; the cat looks unhealthy and has an irregular appetite. Roundworms can be treated by giving *Chenopodium* 0 in pilule form night and

morning for a few weeks, and later, one dose of Cina 200 which can be repeated in a week. For tapeworms, give Filix Mas. 3X night and morning for a few weeks and at the end of the period, one dose of Filix Mas. 200.

To correct the acid condition conducive to worms, give Natrum Phos. 6X morning and evening, for a few weeks.

Long-haired cats should be groomed regularly to prevent hairballs. During the moulting season a teaspoon of olive oil once a week will help prevent these, and a dose of Sulphur 30 will help at this time. The reason cats sometimes eat grass is so that they will vomit up the hairs they have swallowed while grooming themselves.

A more serious condition is mange, particularly as it may be communicated to man. This is fairly common in cats. There is intense irritation, usually around the eyes, head and ears. The animal should be bathed once a week for three weeks in 60 g (2 oz) of sulphurated potash to 5 litres (1 gallon) of water, and all its bedding disinfected. One dose of Sulphur 30 should be given after each bath, and the cat’s sleeping quarters sprayed with a suitable fumigant.

Eczema is not contagious but is very irritating and often difficult to clear up. For the dry form of eczema, try a change of diet; also give Natrum Muriaticum 6X morning and evening until the condition has nearly cleared up. Then give one dose of Sulphur 200. Calendula ointment can help relieve the irritation. Calendula ointment is also suitable for canker of the ear: first clean out the ear with cotton buds. One dose of Sulphur 200 may be given and repeated in a week if the condition is not quite cleared.

There are many other ailments to which cats are prone for which there is no space here. I have tried to list a few of the more common ailments which are easy to treat. However this article does not attempt to replace qualified veterinary surgeons, or qualified homoeopaths, for that matter, so if you have any doubts you should consult a trained person.

When using homoeopathic remedies it is always advisable to stay with the lower potencies, up to the 6th (3x, 3, 4x, 4, 5x, 5, 6x and 6) if you are not sure. They will be just as effective but slower to work. The sign 0 means mother tincture.

The main source of this article is an excellent little book called *Treatment of Cats by Homoeopathy* by K. Sheppard, published by Health Science Press, Rustington, Sussex, England (1960).

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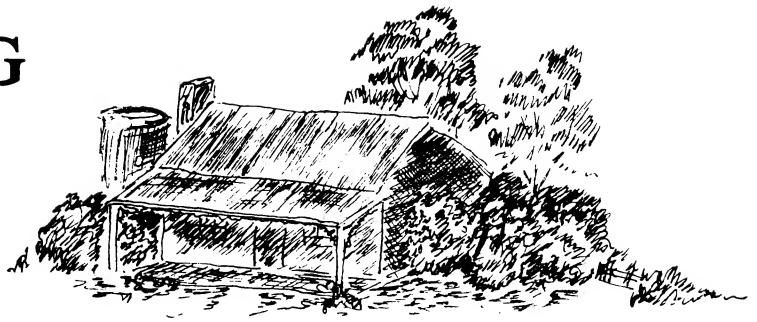
The suggested medications may be obtained from qualified naturopaths and homoeopaths, or your local health-food shop may be able to order them for you.

An excellent book on cat care is *The Natural Cat – a guide for caring owners* by A. Frazier and N. Eckroate, distributed by Thomas C. Lothian, 4-12 Tattersalls Lane, Melbourne, 3000.

The book is written around the idea that diet, emotions, exercise, and grooming contribute to the overall health of the cat. Of interest is the chapter on health care, not only is it full of practical advice but the emphasis is on natural treatment and in particular, vitamins and minerals.

REJUVENATING AN OLD COTTAGE

by Jim Maxlow, Glen Forrest, WA.



Glen Forrest township over here in Western Australia dates back to the turn of the century, when it was a timber-mill town and railway terminal. Consequently there is a wealth of old buildings in all states of preservation and restoration, and every weekend you can hear owner-builders and craftspeople from all walks of life hammering and planing and sawing, transforming the little run-down cottages and bringing them into the 80s.

Of course, everyone's ideals, goals, skills and needs are individual and different, and this is strongly reflected in the outcome of each project. On one hand are the purists, who restore the cottages to their original condition, although fitting them out with more functional service areas; on the other hand are the extremists, who move into their cottages, and gradually build around and over them, eventually dismantling the original building entirely so that nothing is left except the new structure.

We fall neatly in between these two extremes, in that we are retaining the original structure and overall character of the cottage we bought, while rebuilding the lean-to additions. The wisdom of this decision becomes more and more apparent as we work our way through the 'crud' that has been tacked on to the building over the years. The original structure is still

sound and in good condition, whereas the additions are cracked, warped and white-ant ridden — reflecting the difference in workmanship, and bringing home to us the importance of doing a good job ourselves.

The people who built these cottages knew how to cope with white ants and difficult timbers and, by their use of verandahs, they were able to combat even the elements relatively effectively. Having spent some time living in our little cottage and absorbing its vibrations I can feel an affinity with the old-timer who built it, and resentment towards the intervening generations of inhabitants who unsympathetically tacked on lean-tos and infilled the verandahs. And yet as I tear down the rubbish I am conscious that I must beware of falling into the same trap in my rebuilding — I don't want to incur the displeasure of future owners!

The cottage itself is small by modern standards, with an unsatisfactory room layout, a decrepit bathroom, laundry and WC, and an inadequate kitchen. A familiar tale to all who have bought or lived in an old cottage, with the added drama of the ever-impending shire council demolition order. It was only after we had lived in the cottage, allowing it to tell us what needed doing, that we were able to come up with a satisfactory working plan for its restoration.



The Maxlow's cottage 'before': an 'after' photo is not yet available, although the lean-to shown has been replaced with a 'new' kitchen/dining room. Next year's project is the left-hand corner — the only real extension to the original floor plan.

At the moment I am part of the way through the restoration and enjoying every minute of it. Old buildings allow you to recycle old materials because they blend in perfectly. The biggest problem is to blend the old and the new structures together satisfactorily. To do this I am using second-hand bricks and timber, retaining the old roof line, exposing the old verandahs, refitting windows and doors to match throughout, repainting and landscaping selectively; all this helps to harmonise the external features.

On the inside of a cottage like this one, often the old wall and ceiling lining badly needs to be replaced, so here continuity can be achieved by relining, trimming and painting consistently throughout the building. The old cottage often shows progressive generations of building materials, from the original lining, say of plaster, through masonite, asbestos cement and hardiflex to something I am determined to avoid — the modern timber-grained plywood panelling.

Faced with such a variety of materials, you have to decide how much lining to replace (if any) and, if you choose to retain the existing lining, what to line the new structure with. I was faced with this problem since I want to preserve the existing plaster in selected areas, and also the existing weatherboards, which, with the infilling of the verandahs, are actually internal lining. I opted to make a feature of the weatherboards and to use them in certain areas of the new structure. This gives a continuity of materials from one part of the house to the other and creates a feeling of integrity. Ceilings will be relined consistently throughout and the paint scheme will also carry through.

Once we have finished the house won't look like an old cottage, although its original shape will be preserved; however it will still *feel* like the original old cottage. We won't have restored it faithfully, as some do, nor destroyed it completely, as do others, but we hope we will have given the cottage back its old character and its peaceful harmony.

★★★★★★★★★★★★★★★★★★★★

PENPALS

I am miss Julieta C. Facto, 29 years old, 5 ft 2½ in, 120 lb, long hair, catholic and an employee. My interests are listening to music, dancing, cooking, collecting stamps, gardening, lots of reading, and if good things come from my head I write poems.

A.C. Yulo Estates, Inc., 6 Rosario St., Yulo's Park, Bacolod City, PHILLIPINES.

My name is James Andrew Webb and my interests are stamp collecting, horse riding, cricket, football and swimming, and the breeding of ducks and chickens. I would like a penpal from seven to ten years of age, who lives in the country anywhere in Australia.

James Webb, 'Mount Mia', Blacksnake Road, KILKIVAN 4600.

I am 14 and would like a penpal of any sex, preferably from the snowy mountains or the N. Territory. My interests are swimming, writing, reading, hiking and camping. I like all music except heavy rock.

Kim Bramble, PO Box 35, WAUCHOPE 2446.

I am 8 years old and I would like a girl penfriend under ten. I live in a place where there are a lot of mine shafts. My hobbies are reading, drawing and writing. I am learning to play the violin. I like birds, animals and plants, especially elephants and orchids. I love travelling. I have an 8-month-old brother.

Johanna Chappel, C/- PO, ST ANDREWS 3761.

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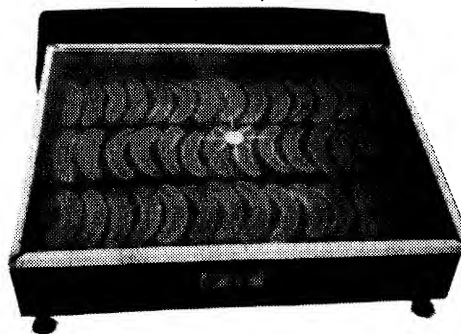
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SEAWEED

Reap a harvest from one of our most frequently ignored natural resources — seaweed. The following articles explain how seaweed can be used as either a nutrient-filled plant fertiliser and mulch, or as a vitamin-packed food source.

Free Treasure from the Depths

by Jose Robinson, Wild Cattle Island, Qld.

We, the caretakers of the soil, still have much to learn from nature if we are to survive. Man-made pollutants and synthetic soil fertilisers have been slowly devastating the land. Do we, in our supreme ignorance, imagine we can improve on nature by using unnatural chemical methods? Earthworms, although always considered the lowliest form of life, are really our front-line troops in the constant battle to keep the soil fertile. Synthetic fertilisers destroy earthworms! Need more be said?

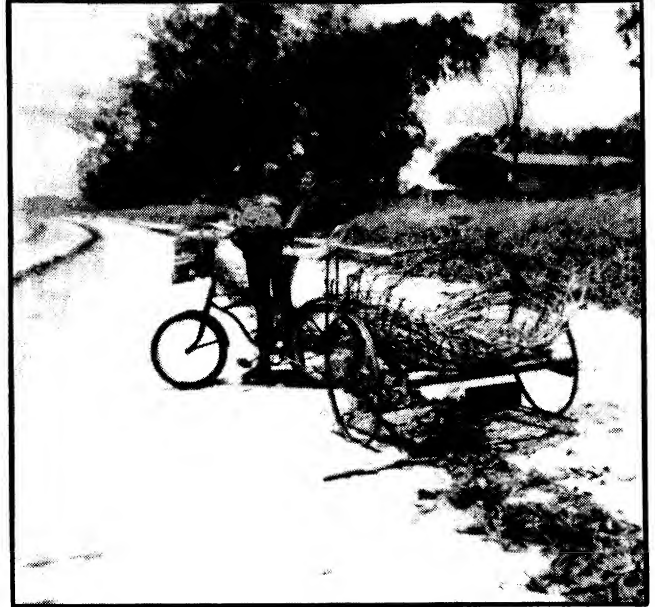
Seaweed is a free gift from nature with the potential to rejuvenate our overworked agricultural land. Used either as crushed powder, foliar spray, composted, or simply forked into the soil fresh from the beach, seaweed can replenish the vital trace elements that have been steadily leached away. Seaweed is an organic manure that contains more potash than phosphates, and, in addition, is rich in most of the trace elements required by plants. In experiments seaweed has been shown to increase plant vigour, and enable plants to absorb more effectively the nutrients already in the soil. A further bonus is the alginic acid found in seaweed, which acts as a natural soil conditioner. Other valuable nutrients in seaweed promote bacterial life, which is so necessary for a biologically balanced soil.

Seaweed can really be called an underwater vegetable, but it is unlike any crop which grows above ground. It has no sap yet every cell on its surface absorbs food and manufactures energy, which makes it so valuable as manure in our gardens. Most health-conscious people know what an excellent source of minerals and vitamins kelp and some of the other edible seaweeds are when included in our diet. But while many varieties of seaweed may not be considered palatable for human consumption, certainly all varieties are suitable for adding to the soil.

When speaking about seaweed-fertilised gardens most people invariably ask the same question. 'What happens to the salt content? Wouldn't that kill the plants?' Well, I admit it does seem strange, but in my research I have found that seaweed does not absorb sodium chloride! It absorbs sodium ions and chloride ions, and sodium and chloride in this form do not adversely affect plants, animals or humans.

On our Australian coastline there is seaweed washed up on almost every tide. It depends on weather conditions just how much is deposited on the beaches or rocks. Most of us have the opportunity at some time or other to spend some time at the beach. Keep a bag in the boot of your car so it is always there when you take that impromptu day off from home chores to have a beach picnic, or go on a weekend trip.

Living as I do, with the beach at my front door, I am fortunate to have daily access to this natural free gift. When the northerly blow, or after a storm, I can collect seaweed by



Seaweed collecting on Wild Cattle Island. The Robinsons house can be seen in the background.

the truckload, and give my gardens their Christmas and birthday presents all in one, plus a load for the compost heap to boot. Other seasons with lesser ocean disturbances bring only a scattering of seaweed, and then to collect it I attach a little trailer to my bicycle and ride out along the hard sand at low tide. When nature is feeling less bountiful I find a walk along the beach carrying a plastic bucket is sufficient to collect the small maidenhair-like strands of wispy seaweed the tide has gently scattered for me.

Seaweed is best collected the same day as it is deposited on the beach to gain the maximum benefit from its valuable nutrients. If it is left longer than a couple of days in the hot drying sun it will decompose too rapidly and so lose some of its organic properties. I find that straggly bits can go straight onto the garden or around fruit trees and shrubs, but some of the larger thicker varieties are probably better chopped through first with a spade.

If you have an ample supply of fresh seaweed you can make an easy no-dig garden. First construct a retaining boundary either of bricks or timber to the required size. Next pile the freshly gathered seaweed about 30 cm (1 ft) deep on top of the undug ground inside the boundary. Then place a layer of leaf mould or straw or any similar available material, and top it off with a layer of soil. If you leave this for a couple of weeks before planting, all the better. After that period of time you will marvel at the richness of the soil as you dig small holes to insert your seedlings. Then just sit back and wait for the fantastic results.

Sea Vegetables

by Xandria Williams, M.Sc., N.D.

We have called the plants of the oceans 'weeds' for so long that it is probably too late to change now, but since a large number of them are edible and nutritious the term 'sea vegetable' seems a lot more appropriate.

When it comes to seaweed, most people think exclusively of kelp. To them the word 'kelp' covers (a) tablets that contain the green powder, rich in iodine and other trace minerals, or (b) powder or granules with similar properties that they add to their food. To some it is one of the many magic tablets that are supposed to help them lose weight. To only a few it is a group of dried plants/vegetables that they can cook.

In fact the edible algae form a wide range of interesting and delicious plants rich in nutrients — not only vitamins, minerals and trace elements but also the enzymes that regulate almost every life process. These plants have the ability to concentrate in balanced proportions the nutrients abundant in the sea but do not accumulate the heavy metals, radio-active isotopes and other pollutants found in most of our other food sources. Heavy metals such as mercury and strontium are found in marine plants but only in the naturally occurring trace quantities needed by living organisms and only in the form of naturally occurring compounds.

Chinese physicians used sea vegetables as long ago as 3000 BC to treat human maladies. The Babylonians used extracts and whole plants for cosmetic and skin-care preparations. The ancient Egyptians treated what we now call goitre with sea vegetables. East coast American Indians dipped sea vegetables in clam juice, sun-dried them and used them effectively against influenza, a custom still followed on the coast of Maine.

On Aran and the other barren, windswept islands off the west coast of Ireland, generations of hardy islanders have grown their subsistence crops for themselves and their few sheep in a mulch of sea vegetation, laboriously hauled up the steep cliffs in baskets. These rocky islands have little soil; without the nutrition of the sea vegetation packed into crevices in the rocks these people would not have been able to sustain themselves.

Our bodies, like most organisms, are self-cleansing and self-regulating. But even the remarkable resilience of the human body breaks down and becomes far out of balance when exposed for too long to the twin evils of stress and lack of proper nutrition. If we are truly healthy we will not become ill even though small numbers of potential pathogens live in our tissues most of our lives. But if we are under stress we will not have sufficient defence and will fall prey to whatever comes along.

The alginic acid found in sea vegetation acts as a binding or chelating agent in the body for the radioactive strontium 90 which is now found in our vegetables, milk and meat. Not only does alginic acid flush out strontium 90 from the digestive tract, but it also extracts and chelates it from within the body tissues. Researchers at McGill University (Canada) are finding that this extends to all heavy metals.

Species of *Dictyopteris*, popular in Hawaii as limu lipoa, are thought to be responsible for the low incidence of heart

disease in pre-westernised Hawaii. Many sea vegetables possess natural antibiotic substances which can be used by terrestrial plants, animals and humans, much as we use the antibiotic sulphur compound in garlic to fight infection and to ward off potential disease vectors.

Extracts from some red algae are known to normalise bowel function. In oriental countries the potassium chloride from the rich sea-vegetable diet is thought to suppress hay fever. Russian scientists have found that the large kelp *Laminaria Japonica* lowers blood cholesterol.

Sea vegetation not only affects human body function but is also of great benefit to animals, plants and soil. Much research has been done, notably in England, USA and Japan on blends of sea vegetables, and the effects of the enzymes or cell stimulants have been noted. Humans and animals such as dogs, horses and goats show increased hair growth and healthier condition, as well as increased resistance to infection and faster healing from injury. By placing a fine sheet of sea vegetation between broken bones, healing time is halved. Orally ingested sea vegetables also reduce bone-knitting time.

Benefits to plants include higher, top quality yields, less risk of trace-element deficiencies, greater storage life for marketable plants, up to two or three degrees of frost resistance over untreated plants, greater resistance to drought and disease, and an overall cumulative improvement in plant and soil condition. Sea vegetable extracts, when sprayed on leaves, are absorbed almost immediately by the plant, depending on the humidity at the time. The extracts enter the hormonal system of the plant increasing the mobilisation of nutrients and overall plant efficiency. They have also been found to be an effective spray against red spider mite and against peach leaf curl.

As a soil conditioner, sea vegetation has the ability to unlock nutrients. The exact mechanism has not been fully described as yet but one of the indirect methods is to encourage the exudation by the roots of plants of a substance which stimulates the growth of helpful soil bacteria and earthworms in the immediate vicinity of the plant. The actions of these soil organisms (as most farmers and gardeners appreciate) is to break down the tightly-bound nutrients of the soil and so make them more available to the plant.

I was once shown around a garden in Perth, WA. It was separated from the beach by a fence and the soil was pure sand. All the neighbouring gardens had poor growth and did not make good vegetable gardens. My hostess had trenched and layered her garden with seaweeds for two years and had an incredibly rich and productive vegetable garden as a result.

The purity of sea vegetables is maintained by the mucilages which are secreted by most of them. These are constantly dissolved by the sea and renewed by the plants so that most impurities such as silt can cling to the surface. Sea vegetables are nourished by the earth's minerals which are wasted into the sea, and they are untouched by pesticides. They are sometimes nibbled and grazed by fish and other marine creatures just as land vegetables are eaten by insects and birds.

As with land plants, the percentages of individual nutritional elements vary from type to type and also with season and environment. Sea vegetables from the cold temperate and frigid zones are far richer in their nutrients than the same varieties in more temperate latitudes. For this reason much of the world's commercial supply is harvested along the North Atlantic coasts. In general, nutritive values of many sea vegetables greatly exceed those found in land food sources.

To the non-botanist algae appear to have all the components of land plants but in fact the algae tissues do not have equivalent functions. Algae and primitive plants use photosynthesis for energy production but do not have true roots, stems, leaves, fruits or seeds. They cling to the rocks and other surfaces by means of 'holdfasts', not roots. Instead of absorbing nutrients through roots, they absorb them from the water in which they live directly into each part of the plant. Instead of leaves they have blades; instead of a true stem they have a stipe; instead of reproducing with seeds they do so with spores, gametes and fragmentation.

In size algae range from tiny species almost invisible without a microscope to giant kelps of 20 m or more.

Algae are classified in five groups according to their function and biochemistry. Both the English and Greek names of each group refer to the colour of the algae, but this is slightly confusing because not all the algae in a particular group may be the colour after which they are named. For example, a 'red alga' may have red pigments in it but may also have so much green pigment that it appears green. Yet it might have the botanical features of the 'red alga' group, and so would be classed with them.

The groups are:

red algae — *Rhodophyta*

green algae — *Chlorophyta*

brown algae — *Phaeophyta*

yellow-green algae — *Xanthophyta*

blue-green algae — *Cyanophyta*.

WHAT ALGAE CONTAINS

Protein

Protein is present in algae and can be up to 25% of dry weight depending on season, habitat and part sampled. Spirulina, now a well-known algae contains 65% on a dry-weight basis. Protein content is highest in spring, as in land crops, diminishing with maturity and with the loss of nitrate in the water as it is used by the algal vegetation. *Porphyra* and some other algae contain proteins with a digestibility factor in excess of 75%.

In general, marine algae are similar to oats in protein and carbohydrate value with the red and green algae having the highest protein content according to the species tested so far.

Half of an adult's daily protein requirements can be supplied by 100 g of dried *Porphyra tenera*, sold as 'nori'.

Carbohydrates

The carbohydrates of algae consist of polysaccharides and mucilaginous materials, sometimes called gels. Some of these are well digested, and some are not, acting more as 'roughage' and passing through the digestive tract. The carrageenan of the red algae contains easily assimilated phosphorus, calcium and other elements. Other gels contain iodine and bromine. Algin is found in the brown algae. Agar is a common gel from

algae and can be used much like gelatine (which is extracted from the hoofs and cartilage of animals), with the useful advantage that it does not need to be boiled but will thicken and set readily at room temperature.

Fats and oils

Many sea vegetables contain small quantities of fats and oils and have low calorie and cholesterol values. Fat content ranges from one per cent to eight per cent with the highest being found in species exposed at low tide. The fat is probably to help them withstand the long dry periods between tides.

Vitamins

Bacteria occur in the sea just as they occur everywhere on land. These organisms, living on the algae, probably synthesise the vitamins we consume in algae. One possible exception is vitamin B12 which the algae may make themselves. This vitamin alone makes algae an important vegetable to include in the diet, especially for vegetarians. Most people get their B12 requirements from meat. Lacto-ovo-vegetarians get some from milk and eggs, but possibly not enough, and vegans, who eat only (land) plant foods, probably get very little. It is thought that there is some in tofu (bean curd) and various fermented products such as miso, but vegans do run a serious risk, in our society, of going short. For them a good source would be the sea vegetables. In fact the green algae contain more B12 on a dry weight basis, than liver.

Several algae contain as much vitamin C as citrus fruits. They include the red algae *Porphyra perforata*, *Porphyra naidum* and *Gigartina papillata*, the green alga *Ulva lactuca* and the brown alga *Alaria valida*.

We think of fish liver oils, almost exclusively, when we think of vitamins A and D. But there are many algal oils that contain much greater quantities than even the fish liver oils. It may well be that these algae provide the vitamins for the fish. Examples of vitamin A rich algae include the green algae *Codium tomentosum* and *Ulva lactuca* and the brown algae *Laminaria digitata*.

Most of the algae contain some vitamin E. The B group generally seems to be more concentrated in the red and green algae than in the brown.

The concentration of most algal vitamins changes markedly with the season of the year. Folic acid and vitamin B12 are highest in spring and summer, while in some algae spring and autumn are the peak times for vitamin C.

Minerals

Algae spend nearly all their lives bathed in nutrients, which means there is a permanent source of minerals available to the algae as they need them. The proportions of minerals and trace elements in seaweed are very similar to those in the human blood stream. This is hardly surprising if we accept that we have the same origin as marine creatures.

The list of minerals is impressive: calcium, magnesium, phosphorus, iron, sodium, potassium, manganese, zinc, copper, chromium, iodine, sulphur, barium, boron, lithium, nickel, silicon, silver, strontium, titanium, arsenic, vanadium and more. In general, calcium and phosphorus are in short supply in our regular daily diet in relation to our optimum physical requirements; we have exceptionally high needs for calcium for our bones and teeth.

To many people the most important mineral in the above list is iodine. Most of us know the dreadful effects of a diet deficient in iodine. There is the classic goitre, thickened neck, loss of energy, increase in weight and a long list of other symptoms. Many inland areas in the world are termed 'goitre belts' because the amounts of iodine in the local food are so low that large numbers of the population suffer from goitre problems. This problem can often be solved by the addition of iodine to the diet; kelp is one of the best sources of naturally occurring, organically chelated iodine.

SPIRULINA

Spirulina has received a lot of popular press recently as a slimming aid. It is a microscopic algae that floats free and grows in alkaline waters. It contains the amino-acid phenylalanine which triggers the production of a compound in the brain that tells you that you are 'full' — i.e. it cuts down

the desire to eat. And it does this without harmful side effects.

In addition, due to its high concentrations of minerals, it helps to satisfy the body's need for these. Many dieters go on eating, not because they are hungry for more calories but because they are still receiving 'hungry' messages for more of the essential minerals and vitamins.

Some of the readily available types of sea vegetables are listed here. They can be bought from many health-food shops. Their common names are Irish moss, Dulse, Nori, Green nori, Awo-nori, Arame, Bladderwrack, Hijiki, Tororo kombu, Mitsuishi-kombu, Ma-kombu, Naga-kombu, Rishiri-kombu, Kelp-sugarwrack, Giant kelp, Ribbon-kelp/Bladder-kelp, Kelp, Wakame.

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This article was reprinted with permission from *Nature & Health*, Spring 1982, and has been updated by the author Xandria Williams.
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Food from the Sea

by Philip Nicholas, Wynyard, Tas.

The seaweeds are a wonderful group of wild plants that we can experiment with as food because very few are poisonous, and the chances of actually dying after eating seaweed are almost non-existent. Beware of seaweeds that taste very sour; these should not be eaten at all — they will cause you to vomit. Although it is theoretically possible to receive more than a healthy dose of iodine by eating large quantities of the iodine-rich seaweeds (these are the seaweeds that dry to a very dark colour) no-one in recorded history has ever died from eating seaweed!

My experience has been that the brown leafy seaweeds are the most edible. The cooking time varies; bull kelp can take up to an hour while giant kelp can be eaten raw or in salads. Generally I match the cooking time to something else as seaweeds are not very palatable when cooked alone. For example, bull kelp can be cooked with soy beans, or brown rice with some of the softer seaweeds. Fresh softer seaweeds can also be cooked with vegetables.

I like to gather seaweed from the water rather than the beach, unless it looks really fresh. This often involves harvesting it at low tide. If it is sandy I wash off the sand in the sea. Seaweeds should not be immersed in fresh water. (Try a bit and you'll see why!) In the gathering spirit one must be careful not to over-exploit such a delicious resource. I never harvest from isolated plants, and try to spread my harvest over a wide variety of locations.

What is not eaten fresh is very easy to dry. Most brown seaweeds can be hung up in bundles and dried, even in a south-facing room. They can then be cut with scissors into the cooking pot. The exception is bull kelp, or any of the really thick types, which should be cut before drying (unless your kitchen implements include an axe).

While fresh seaweed is an experience in itself, it doesn't loose much through being dried. In its dried form it is a great food for camping, bushwalking etc. and much richer in vitamins and minerals than land vegetables.

When cooking with seaweed, leave out the salt. Seaweeds are salty, but not with quite the same flavour as sodium chloride. Their natural salts are much more like the balance

our bodies need. The Japanese have been using this delicate saltyness in their soups for centuries, with a seaweed stock.

Although seaweeds shouldn't absorb pollutants in harmful quantities, I prefer to collect from clean locations. However, I have frequently collected from a large and lush growth of seaweed only to find a sewer pipe emptying into the area. No-one who ate it suffered any short-term problems (all the seaweed from there was cooked).

My advice is next time you're at the beach, go for a wander and nibble a few leaves or strands. You'll soon work out which ones are tough! Collect some small samples and try them in improvised dishes with whatever food you have on hand. Although I've found the brown ones to be the most edible, many other varieties are delicious if prepared in the right way. Seaweeds that I have found edible are *Macrocystis angustifolia* (giant kelp), *Durvillea potatorum* (bull kelp), *Eskloria radiata*, *Phyllospora comosa* and also various *Cystophora* species.

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If you would like to find out more about edible seaweeds there are two books which should interest you. *Seaweeds of Australia* published by A.H. & A.W. Reed Pty Ltd will be available in May, RRP \$9 (approx.). *The Sea Vegetable Book* — Judith Cooper Madlener is distributed by Davis Publications and will be available in February, RRP \$14.95.
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HOW TO MAKE A BUSH SHIRT

for fun, wear, and profit

by Geoff O'Callaghan, Alice Springs, NT.

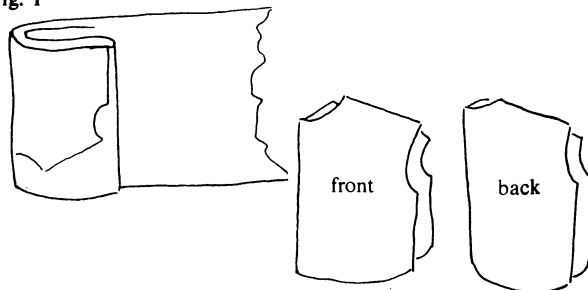
If Australia ever had an item of national costume, or period wear, then the old closed-front bush shirt would be a good example. The shirt was a popular item of male bush wear for many years until coat shirts gradually took over as standard wear for men after World War II. Bush shirts were tough — often made of drill or flannel material, with the advantages that they were warm in winter, cool in summer, and coped well with the bush environment, keeping insects and burrs out, while protecting against the harsh sun and blowing dust.

They are easy to make, needing no pattern. What's more, they require less material than conventional styles, and they can be turned out very quickly. With a little practice they can be made to look very modern and stylish. The front and back pieces are almost identical, with the armholes on the front cut slightly deeper, the neck cut lower to allow for a collar, and a front slit cut for the placket. Many experienced sewers balk at plackets, but the method described is very easy, giving a straight, professional finish. Traditionally, the garment should have a single pocket with a V-top. The placket and pocket are added to the shirt front before the garment is assembled. The sleeves are either long, or short. Short sleeves are quicker and easier to make for beginners. The collar strip is suitable for cuffs also.

Measurements needed are: neck (nape to side); shoulder to neck; length (nape to base of shirt).

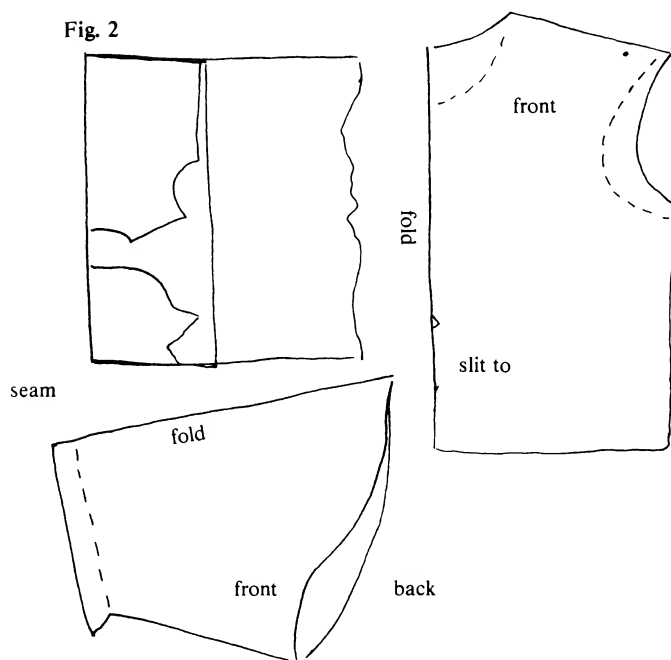
Cut out by folding material into four for front and back.

Fig. 1



For children, sleeves can usually be cut from rest of width (see fig. 2).

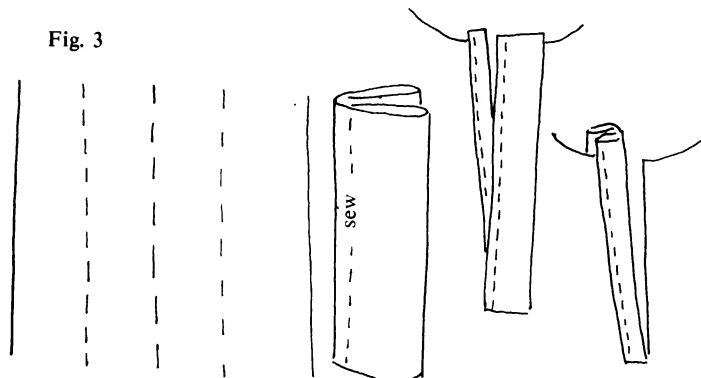
Fig. 2



Cut small notch on top of sleeve as marker. Cut front deeper at neck, and deeper at sleeves. Slit front to half of length (about 5 cm (2 in) above navel).

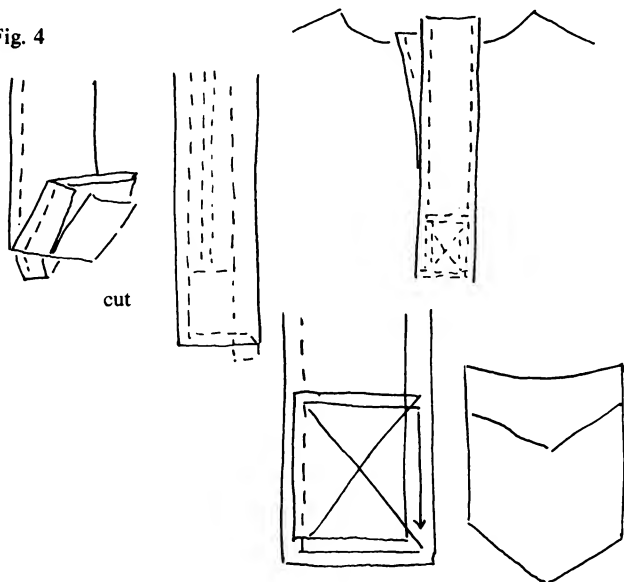
Make placket strip as follows: cut strip about 11.5 cm (4½ in) wide, iron to fold in half, fold edges inwards, to centre, then iron again. Sew down ironed fold, about 3 mm (⅛ in) in to hold strip. Make a narrow strip for the right-hand side of front strip. Sew this in place.

Fig. 3



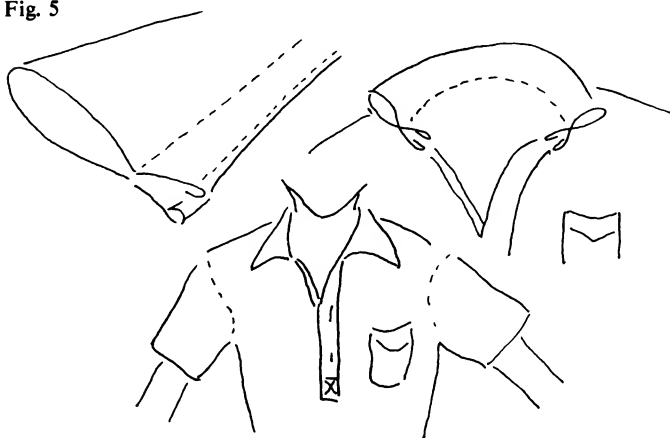
Place placket strip over front slit to cover right-hand strip to about 4 cm (1½ in) below end of slit. Fold back to show slit, and cut underside of placket strip only, in the same line. Cut excess material away to make end of placket neater, but leave strip for reinforcing as shown. Pin placket in place and sew onto front with 'star' pattern for strength on placket end.

Fig. 4



Make up pocket with two pieces of fabric, using a smaller one for a V-top if desired. When finished, sew front and back of shirt at shoulders, with seam inside. Sleeves can be sewn on at this stage. Shirt sides and sleeve bottoms are left until last. The collar strip is easily made. Cut a strip 12.5 cm (5 in) wide and seam edges. Fold in half lengthways, and sew about 13 mm (½ in) in on seamed side. The collar strip is sewn onto collar leaving 13 mm (½ in) on each end to tuck in. If cuffs are needed, the same strip will do, seam sleeve edges, and sew into cuffs, tucking ends in.

Fig. 5



The shirt is now sewn together on sides and bottom of sleeves. Button holes are added, and buttons sewn on to complete the garment. This description is fairly brief, but practice makes perfect. It is a good idea to try children's sizes first. Try using two colours for contrasting V of pocket and placket/collar with main body of the shirt. This is ideal for school uniforms.

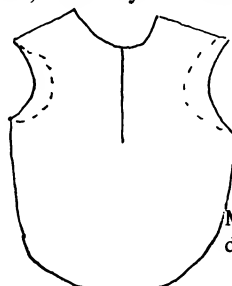
POSTSCRIPT!

I've enclosed some more thoughts of mine on making a bush shirt, plus another photo showing the finished product. The bush-shirted guitar player is my son Patrick, whilst Paul Hammond is pictured here in a shirt with contrasting colours. It has GT stripes down the sleeves and double pockets — just a few of the variations that can be achieved.

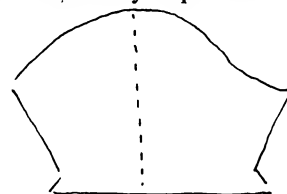


Beginners have a lot of trouble with placket fronts — even though they are very easy. The collars also cause trouble, which is why the 'strip collar' is so successful. One modification to sleeves is to cut the front sleeve a bit deeper, bringing it round more to the front — advanced designers know this.

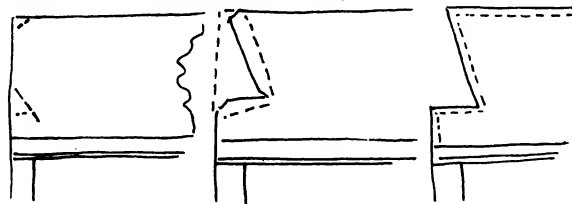
One great feature of the design is its adaptability to a whole range of styles. To make the shirt bigger, strips can be sewn in along the side seam and under the sleeves. Also, a diamond-shaped piece can be sewn in at the armpit to create more room if needed. Once the principles have been worked out, it is easy to make shirts for almost any requirement.



Modify sleeveshape to fit. Cut front armholes deeper to bring sleeve forward.



Another modification is to cut into the collar when fitted to convert it to the collar on stand look.



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SOLAR ELECTRICITY

It's easier than you think!

Part I

by Trevor Berrill and Peter Fries, Toowong, Qld.

The key to using alternative energy sources is proper design — matching the 'load', or appliances, to the energy output of the system. In Part I of this article Trevor Berrill and Peter Fries, both renewable-energy consultants with six years' combined experience, have compiled basic information to consider when designing, installing, and using small-scale photovoltaic (PV) systems.

Photovoltaic and wind energy conversion systems are quickly gaining favour as the technologies that make self-sufficiency not only possible, but comfortable. Both systems have advantages and disadvantages; if you're one of the lucky ones who has a good wind site and plenty of sunshine, then a combined system will allow you almost total independence. However, if your site is like most you will have plenty of one and some of the other, and a decision will have to be made as to where you will invest your hard-earned capital. We will concentrate here on small-scale PV systems and their components.

Because PV systems are relatively expensive when compared to grid-connected electricity, their design is really one of economics — how to maximise output and minimise cost. This can make the designer something of an 'energy juggler', switching appliances constantly to keep them from 'dropping their load', or a 'high wire artist' always striving to maintain the 'energy balance'. A designer must be aware that although it is possible to live with all the conventional comforts, the design of PV systems infers the tightest energy conservation — an almost Scrooge-like attitude towards energy waste.

A person can start with one to four 30-40 watt (peak) PV modules to provide power for lighting and a few small appliances, expanding the system at a later date. Often, a number of other energy sources are used as well, including solar collectors for hot water, a combustion stove for cooking, heating and back-up hot water, and gas for refrigeration.

Most systems rely on a petrol generator for occasional heavy electrical loads such as washing or ironing, and for boost-charging of batteries. The cost of such a PV system can be well below the cost of connecting to local power authorities, which may be as high as \$6000 per kilometre plus \$300-500 per year for 15 years as security charges. The diagram below

shows how the major components of a system would be connected.

GENERAL INFORMATION

Solar radiation data

In order to design your system properly the 'average daily peak sun hours' need to be known and can be calculated from the map on p. 31. (The information is also available from weather stations and the International Solar Energy Society.)

You may need to modify this information depending on local conditions — your site may have significantly more cloudy days, mists etc. than the local weather station. Also consider the effects of elevation, storms, hail, winds, and lightning on your PV system, taking the necessary precautions for safety (e.g. additional earthing protection in areas of high susceptibility to lightning).

Module orientation

PV modules should face due north. If mounting modules on your roof with a due north orientation is impossible, consider using a pole or similar structure to give the array optimum orientation. However, a 15° variation from due north will lower the module output by only 3%.

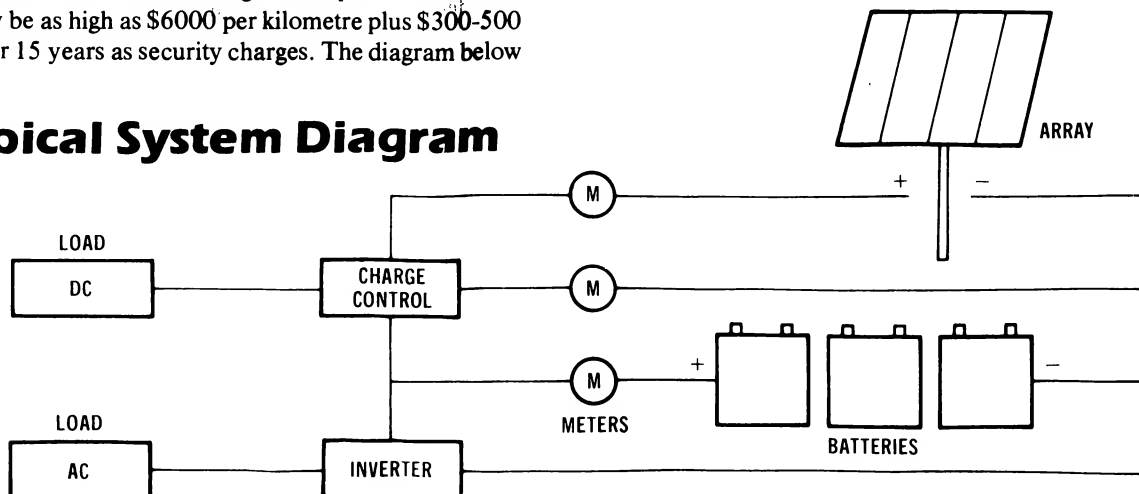
Tilt angle

There are three possible methods of mounting your PV array. These are:

1. Fixed tilt — modules are mounted at a fixed angle equal to the latitude at your site. For example, Brisbane has a latitude of 27.5° and modules should be tilted at 27.5° from the horizontal.

2. Adjustable tilt (facing north) — by adjusting the tilt angle in (1) for seasonal variations, the output can be increased by up to 7%. Adjust the array by adding 10° to the

Typical System Diagram



tilt angle for winter and subtracting 10° for summer, e.g. Brisbane summer tilt equals 27.5-10 (15-18°).

3. Two-axis tracking — fully tracking modules can increase output by 30%. These require some type of mechanical system, which is beyond the scope of this article.

Reflected sunlight

The output of your system can be increased up to 20% by positioning the modules to collect reflected sunlight from shiny roofs or added reflectors.

SYSTEM SIZING

The following method is an approximation and does not allow for any large variations that may be caused by your own habits. Also bear in mind that a heavier discharge on batteries can be expected during cloudy weather unless you use your system with the utmost energy conservation. The following calculations are suitable in most domestic situations and can be made more accurate if specific insolation and load information is available at your site.

Our approach to designing these systems is always to do it backwards: plan the output first — the needs to be satisfied by your system before trying to decide how many PV modules to install. Then work back to the input — the system you must assemble to supply these needs. Now you may think this sounds simple, and in fact it is, but many people don't follow this advice and install a system that doesn't satisfy their needs.

To calculate the electrical 'load' (the amount of energy consumed by all electrical appliances) a unit of time must be used. We have found that it is easier to calculate the electrical energy load on a daily basis. A 'de-math-tified' method will enable you to size your system in five easy steps with basic maths skills and minimal 'number crunching'.

Step 1. Calculate the total average daily load

The 'total average daily load' is found by adding the daily electrical loads of all the appliances. When you are calculating your load, remember the basic relationships between power and energy (see vocabulary). For example: one 20-watt fluorescent light used 4 hours each day would consume 20 watts x 4 hours or 80 watt-hours per day.

Since you will have a number of electrical appliances for which a daily electrical load must be calculated, we recommend that a table of appliances, and the energy they consume, be constructed as shown in the example below for a basic system.

Appliance	Daily use (hours)	Daily load (watt-hours)
20-watt fluoro	4	80
15-watt fluoro	2	30
8-watt cassette/radio	2	16
Total daily load		126

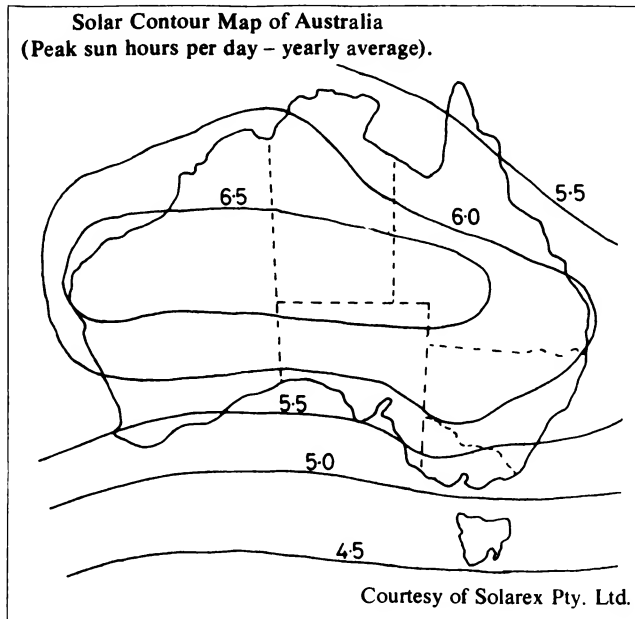
Step 2. Select system voltage

The minimum DC voltage for your system is related to your daily electrical load. Use the following table as a guide; higher voltages can always be used resulting in higher system efficiency.

Daily electrical load (kilowatt-hours)	Minimum DC voltage
3 or less	12
6	24
9	36

Step 3. Select PV module information and sunshine data

Here we will need to know two things: the amount of energy produced daily from a particular brand of PV module (see Table 1), and the average daily peak sun hours at your site (see map).



Step 4. Determine number of modules required

Using the information from step 2 you can now determine the number of modules needed for your system. This number will be:

$$\frac{.238 \times \text{total daily load} \times \text{peak sun hours}}{\text{daily module output (in watt-hours)}}$$

(the number .238 is a factor to account for system losses of approximately 30% and is explained below).

For example, using Solarex X-100G modules at Brisbane's latitude and the total daily electrical load calculated previously, then the number of modules will be:

$$\frac{.238 \times 126 \text{ watt-hours} \times 6 \text{ hours}}{185 \text{ watt-hours}}$$

which equals 0.97 or 1 module. If you derive a value that is fractionally between a whole number (e.g. 1.6) then you can either decrease your load or increase your system by one module, which will also provide some additional energy.

Table I Manufacturer	Peak power (watts)	AMPS	Daily energy output (watt-hours)
Solarex X100G module	37	2.2	185
Arco M61	33	2.05	172
Arco 16-2000	35	2.1	176
Kyocera PSA100H-361	40	2.3	195
Tideland GG-3541/12	35	2.06	178
Tideland GG-3241/12	32	2.06	163

Table 1 Manufacturers rate their modules by specifying the peak power output (watts) and daily energy output (watt-hours) at a standard insolation level. This level is the equivalent of six hours of peak sunshine (1000 watts of sunshine falling on 1 square metre) per day.

Some appropriate PV system uses

The following examples show the energy available for use from PV systems using 2 and 4 modules. Solarex X100G modules are used to illustrate the typical types of appliances and their expected duration of use when supplied with energy from these modules.

A Solarex X100G module generates 185 watt-hours per day on average at Brisbane's latitude (manufacturer's specifications). However, energy is lost in the batteries and cables and this amounts to about 30%. Therefore, 70% of the energy generated by the module is for use by the appliances. In this case, 70% of 185 watt-hours — 130 watt-hours — is available.

2 modules — 260 watt-hours available daily at Brisbane's latitude.

Appliance	Daily use (hours)	Energy consumed (watt-hours)
1 x 20-watt fluoro	4	80
1 x 15-watt fluoro	2	30
1 x 10-watt fluoro	1	10
1 x 40-watt TV/stereo	3	120
1 x 4-watt radio	5	20
		260

4 modules — 505 watt-hours available daily at Brisbane's latitude.

Appliance	Daily use (hours)	Energy consumed (watt-hours)
2 x 20-watt fluoros	4	160
2 x 15-watt fluoros	2	60
1 x 40-watt TV/stereo	3	120
1 x 4-watt radio	5	20
1 x 30-watt water pump	2	60
1 x 360-watt drill	10 min	60
1 x 250-watt blender	6 min	25
		505

PV vocabulary

The following terms are useful when describing photovoltaic systems. *Solar cell* (photovoltaic cell) the basic unit of PV systems. Each cell produces DC electricity when exposed to light of the proper wavelength. The amount of current (amps) a cell will produce depends on the cell's material, area, and intensity of light. Most commonly used cells are made from monocrystalline (single crystal) and polycrystalline (many crystals) silicon.

Module — individual cells are wired together in series and parallel and encapsulated in protective materials to obtain the desired voltage and current characteristics.

Array — a number of PV modules wired together in a system.

Voltage — in electricity, the voltage of a system can be compared to the 'pressure' in a water system. Voltage is either AC or DC (see below) and measured in 'volts'.

Current — the amount of electricity actually flowing in an electrical circuit measured in 'amps'. With the water-system analogy, the current would be the amount of water circulating in the system.

Resistance — the resistance to flow of current through the electrical circuit measured in 'ohms'. In water systems, the resistance is analogous to the friction between the pipes and water.

DC — Direct Current.

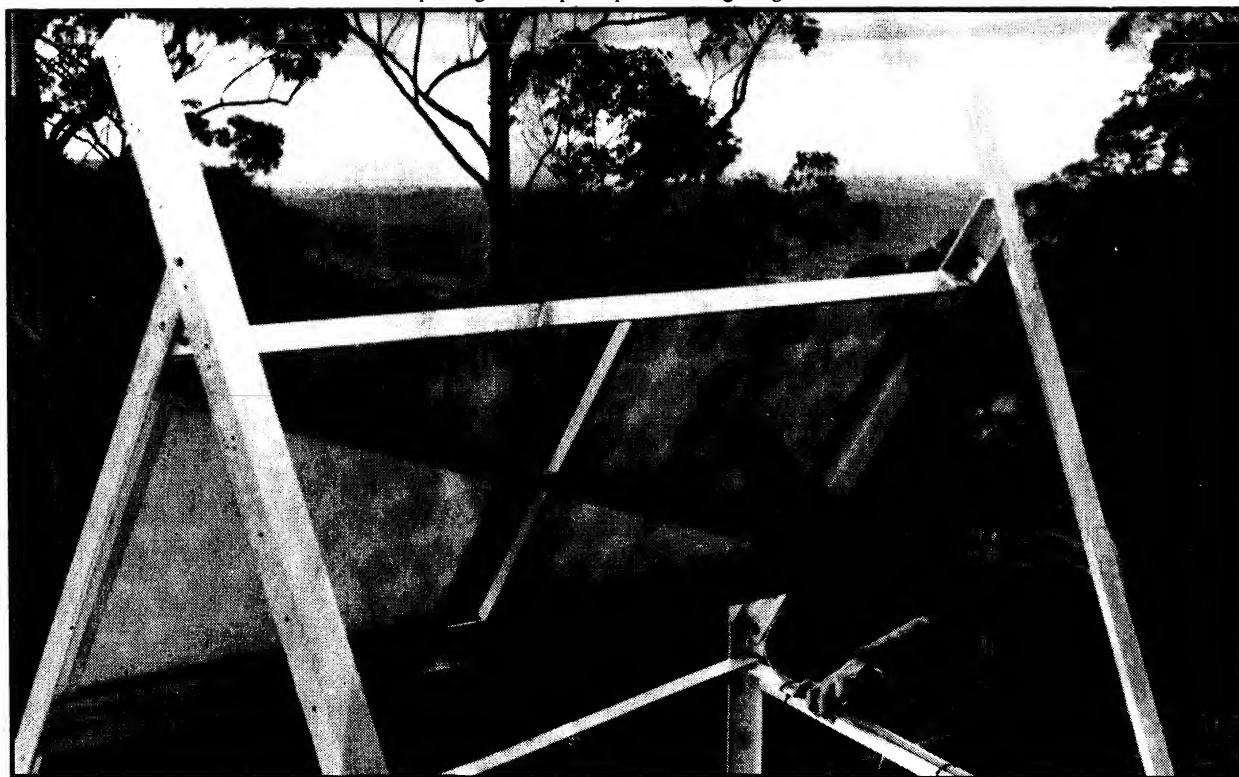
AC — Alternating Current.

Power — the product of volts x amps and measured in 'watts'.

Energy — The product of power x time and measured in 'watt-hours'.

Trevor Berrill and Peter Fries are design and installation consultants for low-cost home energy systems, and may be contacted at 'Alternatives', 37 Bangalla Street, Toowong 4066. Ph: 07-3716994.

Part II will conclude *Solar Electricity* with information on battery storage, capacity and maintenance, voltage regulators and putting all the principles of design together.



Trevor checks the wiring on a PV system, designed and installed by him, at Mt Nebo near Brisbane. The system consists of two 35-watt Solarex X81 modules mounted on an adjustable frame. The modules charge two 65-Amp-hour 12-Volt 'deep cycle' batteries, connected in parallel, to provide electricity for lighting and music.



The control board of the Mt Nebo PV system showing from left to right; linear-shunt voltage regulator, meter box, switchboard and fuses. The PV modules charge 130 Amp-hours of battery capacity to provide for 5 days of energy storage. A 55 Amp/12-volt alternator driven by a petrol engine is used as a back-up to the PV system.

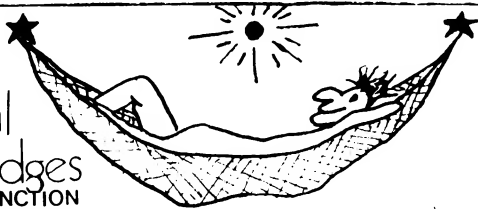
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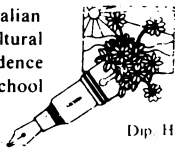
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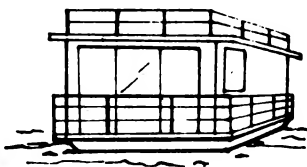
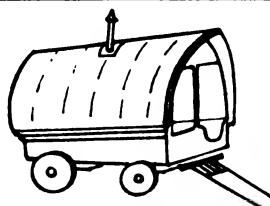
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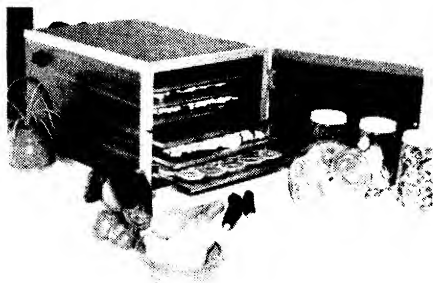
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ORGANIC 84

The 1984 Festival of the Organic Gardening & Farming Society of Tasmania, to be held on March 3-5, has a theme of self reliance with emphasis on health and education.

Our guests will include Meg and David Miller from Shepparton, Victoria. They will need no introduction to readers of *Grass Roots*, to whom they have passed on their philosophies and knowledge for a number of years through the pages of the magazine they founded. Meg and David have successfully lived the self-sufficient way for the past ten years.

Maureen Leslie is a school teacher and librarian from Victoria, whose mission is to convince our educators that organic methods and philosophies should be taught at the grass roots level, that is, in our schools.

John Fenton, (Victoria) tree planter extraordinaire and conservationist, will talk about and plant trees adjacent to the festival site.

Ken Atherton, a Victorian pharmacist, will talk on the subject of food allergies and sensitivities, how they can effect the health, and what can be done about them,

Arthur Brotheridge (Devonport), whose self-sufficiency programme was a hit at Organic 83 will again give of his expertise.

Regular guests will include Geoff Rallings, Peter Cundall, David Stephen, and, it would not be a festival without popular MC, Leicester Jones.

The venue, Richmond Caravan Park is approximately 30 km from Hobart, just outside the historic village of Richmond in the south-east of Tasmania.

A demonstration garden is well under way on the site and a good range of demonstrators will be there to pass on self-reliance skills. Good wholesome food will be available.

Registration fees are unchanged from last year:

\$8.00 per person for the weekend

\$3.00 per person per day

no charge for children under 16.

Please join us for a weekend of caring and sharing in a beautiful setting at Richmond on March 3rd, 4th, and 5th.

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PROTECT YOUR POULTRY

with electric fencing

by Bill Connors, Euroa, Victoria.

One of the many problems that face the keeper and breeder of domestic poultry, particularly waterfowl, is the fight against the various predators that seem to be ever alert to the unwary hen or duck. The main offender is, of course, the fox. Introduced in the early days of the 'colony' to provide the gentry with the sporting opportunities they had enjoyed in the 'old country', this animal is one of the many disasters European Man brought to this continent.

The domestic cat gone wild, these days described as the feral cat, is also a great trial to anyone living in the bush who is trying to build up a flock of free-range poultry. This animal seems to have attained an unusually large size in my area and is quite capable of 'knocking off' a fair-sized chook without any trouble. The domestic dog also seems to be something of a problem in some areas, particularly if your block is close to a town, because many people fail to exercise the control over their pets that they should. I do not have a problem with the dog but I do have a very severe problem with the other two.

I have had an interest in pheasants and waterfowl for many years and for most of that time I have been troubled by the odd loss of birds to foxes. For the most part I accepted these losses as being part of the price one pays to enjoy this particular interest, contenting myself with the odd foray around the farm with a spotlight and gun.

Some eight years ago I shifted myself and my birds a few miles along the creek to my present location and there my troubles with Reynard really began. Soon after my arrival I began to lose birds; they disappeared without trace in many instances, while in others a search of the surrounding paddocks would reveal a pile of feathers in some convenient spot where the thief had enjoyed his meal.

Many fence designs were tried, but the only one in which I had any confidence proved very expensive and involved outriggers at the top of a 1.75 m (6 ft) fence and netting along the ground at the base.

Much of the fencing around the farm had a single electric wire to control cattle and one day I watched a fox trying to get through one of these fences. The animal had obviously received a shock from the fence, though I did not see this. It ran up and down along the fence for some fifteen minutes looking for a way through but obviously not prepared to get too close to the wire. At one point it tried to climb a tree near the fence, possibly with the idea of getting over the fence along a convenient limb. Finally it must have sensed that I was watching and disappeared along the fence and over a ridge, still trying to find a way through. From that time on I began to use various designs of electric fencing in association with conventional wire netting to make my waterfowl and other enclosures predator-proof.

The design I now use is as follows. A standard enclosure for waterfowl consists of 1 m (42 in) wide wire netting (1.5 in gauge) supported on steel or treated posts with a single electric wire 15 cm (6 in) above this along the top and another 20 cm (8 in) out from the netting and 25 cm (10 in) above the

ground at the base of the fence. The base wire is supported by an outrigger-type insulator which is used in standard farm fencing. I did have some difficulty with tension in the electric wire because of the short runs of wire involved; I overcame this by using springs in the wire to provide a constant tension. These springs were obtained from a friend who is probably one of the great 'scroungers' of our time and he seems to have saved them from old chairs consigned to the tip. Some of my marsupial enclosures are made with 1.8 m (6 ft) high netting and an electric wire along the top is still used to provide protection around these areas.

My experience is that a fox will first try to go through the fence, then under it, and as a last resort, over it. The animal will not jump a fence even when hard pressed by dogs — it will try to go through or under. For a fox, going over a netting fence means crawling up the netting and falling over to the other side. I believe that the principal deterrent is the bottom wire and that a fox needs only one shock, like a dog, to convince it that the cost of a meal is too high. Though I have yet to observe the behaviour of a cat when confronted by an electric fence, I believe that the higher the order of intelligence in an animal the more effective is this kind of barrier.

Some years have passed now since I first began to use this method of protection for the birds and animals in my care; I have never lost a bird or animal protected in this way to a terrestrial predator. I have lost birds outside the enclosures which clearly indicates that the wily old fox is still about and, no doubt, he is still trying to find a way through my fences.

The energiser I use is the standard mains variety used by most farmers to contain cattle and sheep. I have included in my system a warning device which tells me if the fence is shorting to earth or if a partial shunt to earth is present in the system, which is useful because of the grass that can interfere with the lower wire, particularly at the time of rapid growth. An electric fence represents a low-cost, easy-to-erect and positive means of protecting your livestock. Use it and rejoice in the benefits of technology.

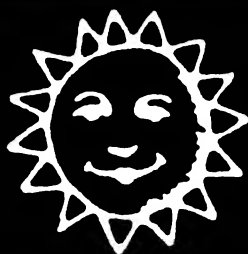
I am also very keen to hear from anyone interested in the idea of captive breeding of native wildlife with particular emphasis on the rare and endangered species. I have been engaged for some years in the rescue of orphaned and injured native wildlife and I have been trying, in recent months, to contact other people in this country doing the same thing. Recently, here in Victoria, a group was set up to bring together native wildlife rescue people but this has, so far, reached out only to Victorians. This problem with native wildlife is encountered in every State so I would appreciate contact with people in other States who are engaged in the work of rescue or would like to be so engaged. You can contact me at Willow Brook Wildlife Park, RMB 3410, Euroa 3666.

FEEDING HINT

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Lolo Houbein, Bridgewater, SA.

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Our nation has become shockingly dependent on foreign oil. Political chaos in the Mid East threatens to curtail or cut-off vitally needed supplies. With oil becoming more scarce and costly by the hour, our cars may soon roll to a stop...our homes grow cold under bleak winter skies.

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**YOUR CAR AND FURNACE CAN FUNCTION
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This is fact. Right now, many people are making their own fuel for pennies per gallon, with a simple "Backyard Energy Plant." Why can't you? You can build it in just a few hours with ordinary household tools. You need little or no mechanical ability. The cost? Around \$40.00, for components available at any building supply outlet!

We're talking about a new, recently designed product of American ingenuity; a small but astonishingly effective Solar Still that costs nothing to operate; that produces "Aquahol"... a mixture of 70-90% (140-180 proof) ethanol (grain alcohol), 10-30% water. You use it "as-is," direct from still, in your car, truck, boat, tractor, or oil-burning furnace.

The water content vaporizes and acts as an "extender," increasing mileage and power. In furnaces, it actually adds BTUs!

The word is spreading fast! Last year, over 35,000 Americans applied for the easy to get federal permit necessary to distill fuel at home. Let us show you, step-by-step, how to have your own "Family Fuel Factory!"

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Alcohol fuel isn't new. It was widely-used by farmers during the Great Depression, it has long been utilized in high performance race cars. Today, in Brazil, new cars are engineered exclusively for Aquahol. There, it's made from the sugar cane Brazil grows in abundance.

Other raw materials? Aquahol is also made from corn, sugar beets, Jerusalem artichokes, wheat, fruit, almost anything that grows. It's based on a renewable resource... not on mere discovery of something that took eons to "make," and once used, is gone forever.

Many respected scientists and engineers agree that fields of green and gold, stretching as far as the eye can see, are the answer to our nation's economic and energy problems. NOT new oil fields or "syn" fuels.

NB. What's blocking progress? Powerful oil lobbies, public ignorance, mis-leading information in the media. Hopefully, the day will soon arrive when Aquahol is sold in service stations (as it is in Brazil); when American farmers, not OPEC, will bank their energy dollars. Then, farmers would receive a fair price for crops; NOT the huge federal subsidies (22 billion dollars in 1978!) they're paid annually to let their lands lie fallow. This same land, when planted for Aquahol, could end our petroleum dependence!

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To help people become energy independent, our firm markets an "Energy Survival Kit." It contains complete step-by-step instructions for making Aquahol without costly sugar; mash recipe; fermenting and distilling procedures; illustrated plans (and parts list) for making your own Solar Still.

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If after receiving everything, you're not convinced you can easily make your own fuel, then I'm the loser. Not you. Return your "Survival Kit" at the end of 10 days or sooner, and I'll refund your money in full. That's my solemn pledge to you.

Your own backyard energy plant, producing precious fuel day after day through free solar power, can be the best investment you ever made... financially, and for the well being of your family. Let us help you, as we have many others, to become energy self-reliant!

Sincerely,

P.S. Don't confuse Aquahol with Gasohol. The latter is only 10% alcohol (pure 200 proof, expensive to distill). It's a step in the right direction, like a 10% cure for a terminal illness. Aquahol is 10-30% water!

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WELDING — WITHOUT A WELDER

by John Reay, Woonona, NSW.

How many people would like to be able to do simple welding jobs themselves and yet cannot justify buying a welding outfit? Alternatively, how many handymen are unable to weld because they have no access to mains power? (It is not always possible to operate a welder from a generator set.)

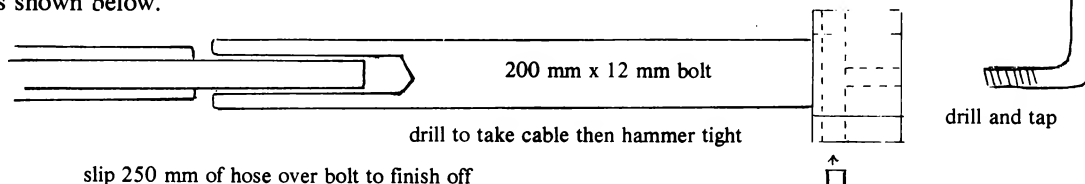
The simple solution to both situations may be DC (Direct current) welding. Commercially, DC welders operate by rectifying mains power. However, another suitable source of DC power is the common 12-volt car battery (although you will need two for light gauge and three for heavy gauge welding).

You will also need:

1. Welding rods
2. Welding-rod holder
3. Welding face mask
4. Car starter-motor cable and battery connectors
5. Length of stainless-steel strip.

For welding mild steel, select a general-purpose welding rod of similar gauge to the metal you are welding (polarity for these rods is not important).

2. You could buy a welding-rod holder or make a simple one as shown below.



3. Do not weld without a good-quality lens in a full-face mask. Your eyes will be damaged permanently if you attempt to scrimp on this item.

4. Two short and two long lengths of starter-motor cable taken from an old car will be needed. The connections to the batteries are best made using car-type battery connectors.

5. Often the current available from two batteries is too great for very light gauge rods. A simple current adjustment can be made from a strip of stainless steel connected into the circuit with at least one clamp. The length of the strip will depend on its width and thickness, so a little trial and error is needed. As a guide, a cross-sectional area of 25 mm would require a length of 1 m (50 mm would need 2 m). Although stainless steel has been recommended, a length of galvanised

steel will also work well; however, it will need to be about seven times the length of the equivalent stainless steel.

Precautions

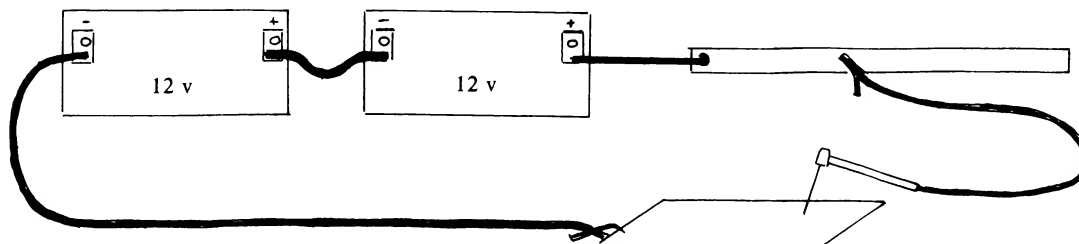
- (a) Keep away from inflammable gas and liquids — remember that the sparks will leap many metres.
- (b) Before welding on a motor vehicle, disconnect the vehicle's own battery and avoid touching any wires, brake or fuel lines with the tip of the rod.
- (c) Never connect the batteries together before double-checking their polarity.

Pitfalls

- (a) Corroded battery terminals or battery clamps will damage the battery and cause unreliable welding.
- (b) Since it is unlikely that any two batteries used for this purpose will be of the same type, size, age or state of charge, it is possible for damage to occur through reverse polarisation. Therefore, if the voltage appears to fail rapidly, stop welding and recharge both batteries. Also, charging and

welding should not occur simultaneously for similar reasons. Although this method is intended for small jobs, a pair of 60 amp/hour batteries should provide approx. 30 minutes of welding time if all is well.

(c) Because the voltage is much lower than mains-powered welding sets, extra care is needed to strike an arc. However, if even a beginner like myself can obtain good results with 10-year-old welding rods, then a more experienced hand could find this the solution to his welding problems.



BUILD A GYPSY VARDO

by Kim Davy, Auckland, NZ.

We come across a pleasant and sensible camping spot with a clean and clear stream to service all our wants, an abundance of firewood, and a natural pocket in the side of the hill to guard us from the wind. There is adequate drainage, should there be a downpour, so we feel very snug. The children are sent to get the firewood, collect the water, and clear the ground from rubble for the tent sites. The women go about their varied duties, which include washing clothes and preparing food.

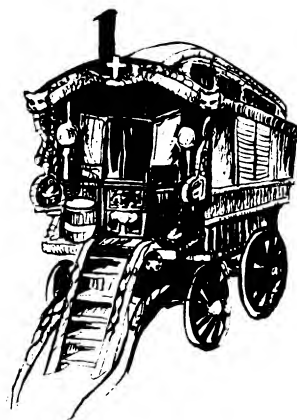
Generally speaking, the women's days are pretty full, especially if there are babies to tend. The men also find much to occupy their time, having to handle all the heavy gear and maintenance. Once the day is ended all seem to settle down to a comfortable, and often chatty, evening with lots of fooling and banter — even the children join in. In this regard there is very little that the children of all ages are excluded from; they are considered as equals in one harmonious group.

The gypsy lifestyle is a very energetic one which, until you adjust, can seem like living on a knife's edge; being always on the move with a constant lack of money. A philosophy comes after a time that really allows one to get on with things, with few hassles — this is what I will endeavour to pass on to you.

Attitudes are what makes life easy, as you will discover shortly after hitting the road. Local house dwellers sometimes object to a dirty vardo (van) in their area; I suggest that it is worth your while to adopt a constructive and co-operative attitude. In many cases people become very helpful. I have been criticised for this view by my fellow travellers; however, I have been on the road longer than any of them, and I think that my attitude is a contributing factor.

The picture I painted at the start of this article was factual, and I would suggest that if you want to 'go on the road' you might consider doing it with others — the benefits are enormous. Being with experienced travellers is a great advantage because they can teach you lessons that you would otherwise learn the hard way. Imagine ten people with different vocations combining their energies. Remember that an advertisement in *Grass Roots* or a newspaper will bring forth any interested people and then it should not take you too long to get together and sort something out.

You will find that to build a van from the drawings shown here will be very easy; I have put together a van in about two weeks. Think simple — don't get into complications. Two accurate end frames, built on a concrete floor, and transferred onto your trailer when complete, will make the whole project a simple one. Galvanised nails, or screws, plus a good glue, can be used for joining and securing. The top can be a carpet with the pile on the inside, then covered with a good canvas. What could be easier! Should you want an overlap each end



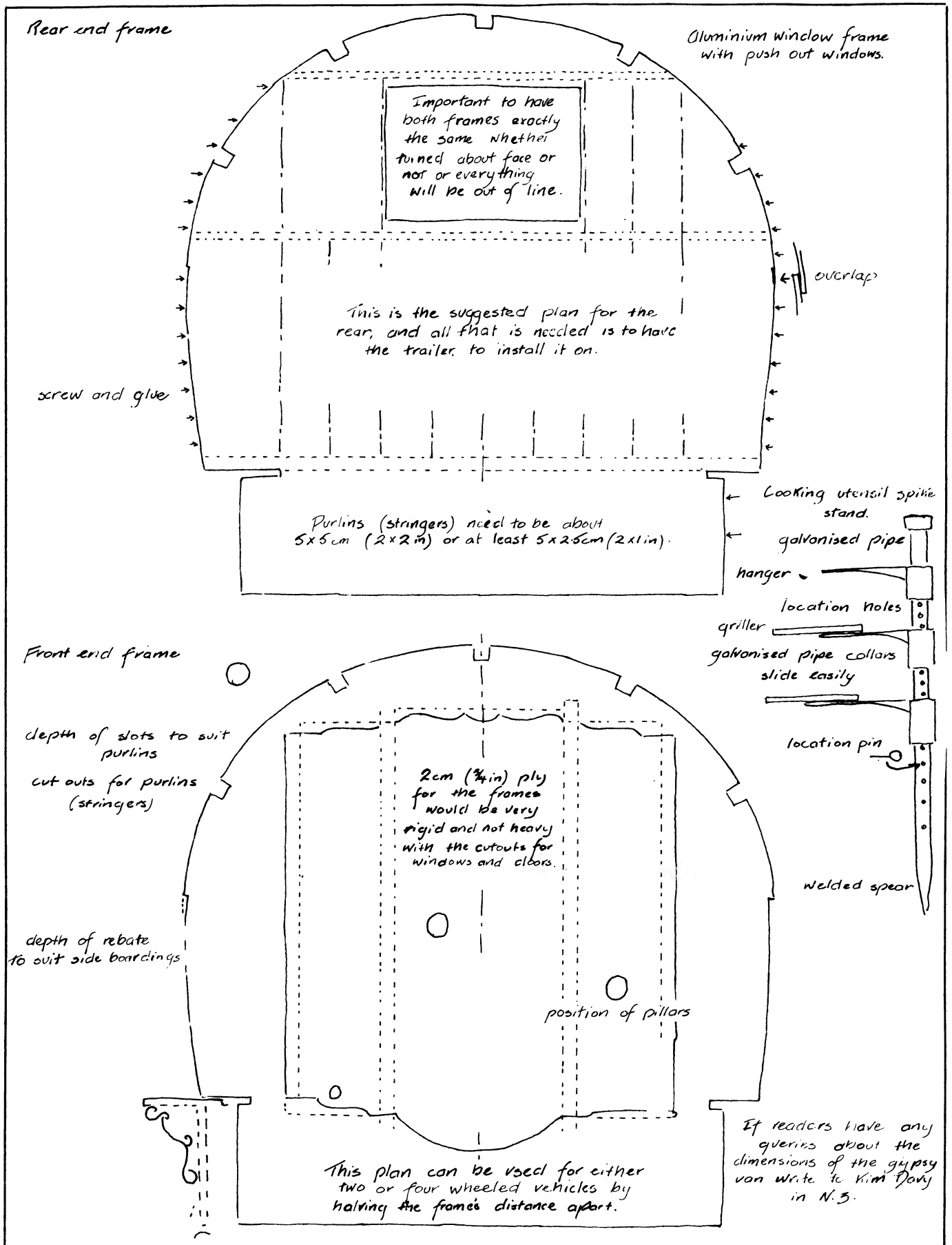
with a draw cord, it makes a very effective finish and is easy to remove in the warm weather. This unit has the added advantage of being light enough for only one horse, but should you be in rugged country, it's easy to attach a tug horse to the side, for the steep hills.

I am sure that everyone is going to want a horse, understandably, but can I suggest that if the horse does not work out, a simple transfer to a small tractor, is a way out. I do not want to be a wet blanket, but horses are for people who know horses, and there are precious few who know draughts and their care; shoes are hard to get, deworming and good feed is a must, for they become run down otherwise. You can spend a lot of money on a good horse — anything up to \$3000 here. I'd like to know what you have to pay over there — maybe someone could write and tell me. I have designed this van around a lighter type horse, maybe two small ones — pacers and trotters are good willing animals, easily replaced and cheap.

In the winter a fire stove is a good idea to keep you warm, to dry clothes and to provide a continual flow of food and water. I used to have a teepee type of cover, a square, 6 m (20 ft) across, that had a 1 m (3 ft) hole in the centre with a heavy hoop laced into it. I used to haul it into a tree, pole the corners and set the fire under the hole. This kept the fire surround dry and provided an awfully good way to smoke fish or meat by hanging them above the hole. If you get an overabundance of meat, rub it down for a few days with saltpetre, then smoke — it lasts forever. Pork and beef, a few inches thick needs about 10 days, rubbing a little in each day. If you want to sweeten it, add a little brown sugar. You can also preserve meat in brine. Make sure that the water has been boiled and cooled under cover, then you can throw your bit of meat in it. I have also included a diagram of an implement which I invented, a spike stand, that carries all your cooking utensils, stows easily away and is a useful possession. (See fig.)

Here is a snippet of information which might interest you from another article I am writing on gypsy food and medicines. Did you know that a thousand years ago the Romany people were taking the fungi off stale bread, mixing it with lard and applying it to cuts etc; today that's called penicillin.

I am compiling an account of gypsy caravans which I will attempt to get printed and I would appreciate any photos or information you may have about them. I will answer all enquiries and letter. (Please include sae.) Kim Davy, G P O, Auckland, New Zealand.



TAKE A HINT

by Robert, WA.

The following hints and suggestions are gleaned from notes and memorabilia which I gathered whilst travelling the world in my youth.

TO DISCOVER THE AGE OF EGGS

The most reliable method of arriving at the age of hens' eggs is that of specific gravity. Make a solution of cooking salt (sodium chloride) in rain or distilled water, of about one part of salt to two parts of water, and in this place the eggs to be tested. A perfectly fresh egg (from 1 to 36 hours old) will sink completely, lying horizontally on the bottom of the vessel; when from two to three days old, the egg also sinks, but not to the bottom, remaining just below the surface of the water, with a slight tendency of the large end to rise. In eggs of four or five days old this tendency of the large end to rise becomes more marked, and it increases from day to day, until at the end of the fifth day the long axis of the egg (an imaginary line drawn through the centre lengthwise) will stand at an angle of 20 degrees from the horizontal. This angle is increased daily, until at the end of the eighth day it is at about 45 degrees; on the fourteenth day it is 60 degrees; on the 21st day it is 75 degrees, while at the end of four weeks the egg stands perfectly upright in the liquid, the point or small end downward.

This action is based on the fact that the air cavity in the big end of the egg increases in size and capacity, from day to day, as the egg grows older. This is caused by the evaporation of fluids through the egg shell. Thus preservation of the eggs can be achieved by an impervious coating being applied to eggs while they are still fresh.

EGG PRESERVER

Waterglass (sodium silicate). This preparation mixes readily with cold water on a basis of one part waterglass to nine parts of water, and it is a wonderful egg preserver. There is no better or simpler preserver known. Waterglass is odourless and colourless. Eggs may be preserved with it for six months or a year and come out as good as fresh-laid eggs. After mixing the waterglass with water as above, pour onto the eggs, which have been placed in a bucket, barrel or stone jar. As the eggs must be covered entirely with the solution, it is advisable to place a plate or cover over the top layer, to keep them from floating. Eggs thus preserved should be kept in a cool place.

INSECT TRAP

Into a china washbasin, or similar sized vessel, half-filled with water, pour a glass of beer; cover the basin with a newspaper, in the centre of which a small round hole is cut. Place it so that the edges of the paper lie on the floor and the hole is over the centre of the basin. At night beetles and other insects, attracted by the smell of beer, climb the paper and fall through the hole into the liquid.

TO DESTROY COCKROACHES

Borax, starch, and cocoa are said to be the principal ingredients of roach food. A formula for a poison is as follows: borax 200 g, starch 50 g, cocoa 25 g, camomile 30 g, insect powder 30 g, plaster of Paris 15 g, sulphur 50 g. These

ingredients should be in powder form and thoroughly mixed. This powder should be sprinkled around where cockroaches collect or run.

TO DESTROY ANTS

A most efficacious means of getting rid of ants is to spray their nests with petroleum. The common oil is worth more for this purpose than the refined. Two thorough sprayings usually suffice.

Boiling water is deadly to ants wherever it can be used (as in the gardens, or around the house).

TO KEEP FILES CLEAN

The uneven working of a file is usually due to the fact that filings clog the teeth of the file. To obviate this, scratch-brush the files before use, and then grease them with olive oil. A file prepared in this manner lasts for a longer time, does not become so quickly filled with filings and can be conveniently cleaned with an ordinary rough brush.

RECURTING OLD FILES

Old files may be rendered useful again by the following process. Boil them in a potash bath, brush them with a hard brush and wipe off. Plunge for half a minute into nitric acid, and pass over a cloth stretched tightly on a flat piece of wood. The effect will be that the acid remains in the grooves, and will take away the steel without attacking the top, which has been wiped dry. The operation may be repeated according to the depth to be obtained. Before using the files thus treated they should be rinsed in water and dried.

TO PREVENT SCREWS FROM RUSTING AND BECOMING FAST

Screws will sometimes rust in their seats, even when carefully oiled before driving them to their seats, but if they are anointed with a mixture of graphite and soft tallow they will remain unruined and unaltered for years.

A screw rusted in may also be removed by placing the flat extremity of a red-hot rod of iron on it for two or three minutes. When the screw is heated, it will be found to turn quite easily.

BOIL REMEDY

Take a piece of soft linen or borated gauze, rub some vaseline upon one side of it, quickly pour upon it some chloroform, apply it to the unopened boil or carbuncle, and place a bandage over all. It smarts a little at first, but this is soon succeeded by a pleasing, cool sensation. Change the cloth often. After between 2 and 24 hours the boil (no matter how indurated) softens and opens.

TO TOUGHEN CHINA

To toughen china or glass place the new article in cold water, bring to boil gradually, boil for four hours, and leave standing in the water until cool. Glass or china toughened in this way will never crack with hot water.

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- Area B : 540 Watt-hours/day
- Area C : 500 Watt-hours/day
- Area D : 400 Watt-hours/day
- Area E : 315 Watt-hours/day

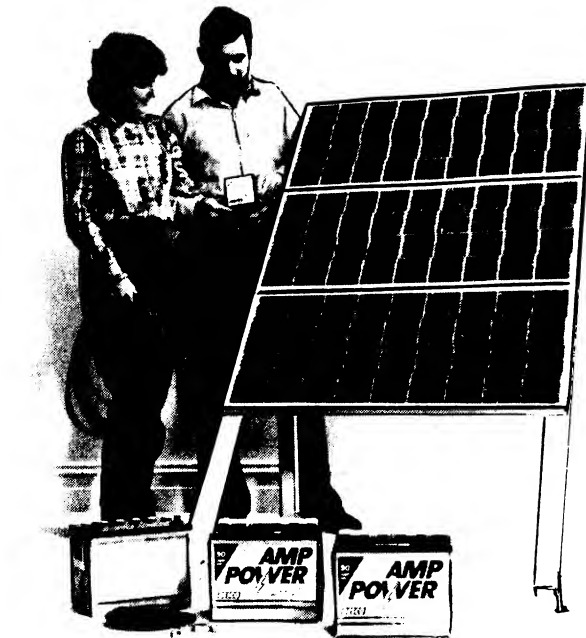


These are annual average figures.

The actual amount naturally varies with season and weather condition of that day.

You can use this electricity to run any 12V DC appliance. For example, if you live in area C, you can operate the following appliances on a typical day :

4 20W fluorescent lights @ 3hrs/day	=240 Whrs/day
50W Portable colour TV 3hrs/day	=150 Whrs/day
Transistor radio, say 5W 6hrs/day	= 30 Whrs/day
Small water pump, say 150W 1/2hr/day (about 800 liters at 4M head)	= 75 Whrs/day
Total	=495 Whrs/day



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Folkwear 112



SAVING SEEDS

by Wendy.

With the possibility of all commercial seeds becoming hybridised, it may be useful to start saving your own seeds. Select disease-free plants of a good stable, resistant variety, keeping in mind the qualities you consider most important (size, taste, time taken to reach maturity, etc.) and leave them to go to seed. Some vegetables cross-pollinate readily, producing seeds not true to type, so these should be placed as far apart as possible in your garden. Cross-pollination commonly occurs within the following groups:

1. Cabbage, broccoli and Brussel sprouts
2. Swede turnip, turnip and Chinese cabbage
3. Pumpkin and hubbard pumpkin
4. Water melon and preserving melon
5. Onion, leek and garlic
6. Beetroot and silverbeet
7. Squash and marrow.

It is also important to know that some plants are biennial and grow for two years, producing seed only in the second year. Here are some details about the most common vegetables.

Cabbage, cauliflower, broccoli, kohlrabi, kale and other related plants are biennial — you can cut off the vegetable itself (to eat and determine suitability for seed production) and the base will resprout, go to flower, then seed. Harvest when the seed is well-developed and the pods turn yellow/tan, but before they commence to open.

Onion and leek are biennial. Cut the seed heads when seed cases assume a yellow colour and begin to split. To clean seed, rub in hand and winnow by gently blowing or by using wind.

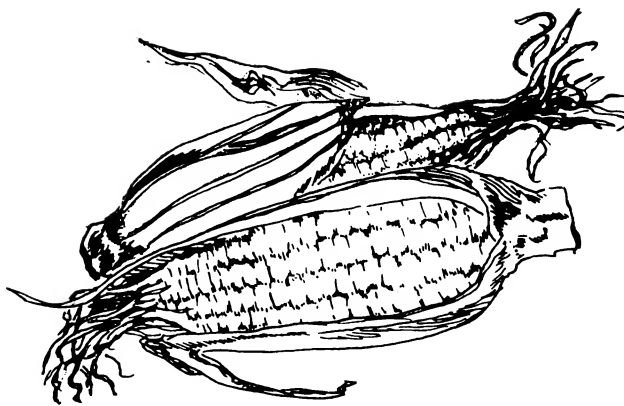
Peas and beans are self-pollinating; collect the seed when dry.

Lettuce and endive are self-pollinating annuals — harvest when 90% of heads are at the full-fluff stage.

Beetroot, silverbeet, chard are biennial and wind pollinated so should be protected from the stray pollen of other varieties by either distance or physical protection (e.g. paper bags).

Carrot, celery, parsley, parsnip are biennial. Carrots can be lifted during winter for selection purposes. The chosen few may then be replaced or stored in moist sand till spring growth takes them to flower and seed.

Melon, cucumber, pumpkin, squash are annuals. To maintain a pure strain in a field of mixed plants, cover the female flowers (miniature ovary or fruit at base) with gauze, as soon as they emerge, then pollinate manually with paintbrush. Keep covered until ovary starts to swell. Cucumbers have mature seeds when fruit is large and yellow (slightly over-ripe), the others are right when just mature. Treat rockmelon and cucumber seed similarly to tomato seed, but reduce fermentation period to 48 hours (or spread the pulp on newspaper or towel to dry). Pumpkin seed should be washed and dried.



Corn is an annual and wind pollinated. Each parent ear of corn should have pollen shaken on the silks (at their sticky stage) and the entire ear should then be bagged to protect it from further pollination. To prevent inbreeding, select seeds from the best ten ears, each from different plants, dry and mix seed.

Tomatoes are a self-pollinating annual but can be visited by bees carrying foreign pollen. To get the true strain, cover newly emerged flower with gauze until the fruit has set, or plant varieties at least 15 m (50 ft) apart. Collect fruit when it is slightly over-ripe and mushy. Squeeze the seed from the fruit and place in a jar of water to ferment for three days; stir occasionally and the pulp and useless seed will float to the top. Good seeds stay at the bottom of the jar. Drain and dry.

Collect only plump, well-formed seeds and store in a cool, dry place where there is little light, in brown-paper bags, seed envelopes, boxes, tins or aluminium packets (but never plastic — seeds can't breathe and go mouldy). Some sources recommend storing in airtight containers. It may be an idea to set aside an area for seed production, so that your garden is not taken over by seeding plants which tend to straggle and may cause weeding problems later. Rotation of seed crops from year to year can ensure supply (since most seeds last 5-6 years if stored correctly) and also solves the problem of cross-pollination within groups.

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Further information on saving seed can be found in the booklet *Seed production for the Australian Home Vegetable Gardener* by Allen and Christina Barry. It is \$2.20 postpaid from the Henry Doubleday Research Association, C/- Shirley Elsegood, 11 Ellendale Road, KENTHURST 2154.

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DUNEDIN NZ

Grow A Linen Tea Towel

by John Meredith, Thirlmere, NSW.

In answer to Dale Sharpe (GR 36) who wants to obtain 'flax' seeds to grow her own yarn. What you require is called linseed, and you can buy it from your local chemist or health-food store.

Linseed is the source of linseed oil, a polyunsaturated oil that is used for making oil paint and also linoleum — the floor covering takes its name from the oil. Equal parts of linseed oil and lime water shaken together emulsify into a creamy lotion, known as carron oil, which is soothing for sunburn, scalds and dry skin. The crushed seed from which the oil has been extracted is called linseed meal and is used for stock feed. Pressed into slabs it is called oil cake.

I doubt whether linseed would grow successfully in the hot, dry climate of Gulargambone, where Dale lives, but she could always try a small patch. Linseed grows well in the cooler parts of New South Wales, and should do well in Victoria and Tasmania. In coastal areas it can be sown in June, but in the mountains and on the tablelands, sowing should be deferred until August.

The soil should be well cultivated and brought to a fine tilth. Broadcast the seed and rake it in. It is not possible to obtain both seed and fibre from the one crop. When planting for fibre production, about 70 litres of seed per hectare is used; for seed production only about 6 litres. This density for fibre production will yield about 2000 to 3000 plants per square metre.

The seed may take up to 14 days to germinate and will grow up to 1 m tall. When about 10 cm tall, the plants should be weeded. They will take about four months to reach maturity, and harvesting must be done promptly to ensure good fibre quality. The correct time is when about two-thirds of the stem, from the bottom up, becomes yellow, and the seed capsules are beginning to turn from green to brown. If harvested later when the seeds are fully ripe, the fibre will be stiff, coarse and of poor quality. The flax is pulled up by the roots, and not cut off, and is left on the ground to dry for a few days.

The next process is called 'rippling', in which the bundles of flax are pulled through a coarse comb to remove seed heads and dried leaves. A rippler could be made from a board through which a row of nails has been hammered.

After rippling comes the important process of 'retting', which is a corruption of 'rotting'. The bundles are immersed in water until the adhesive substances which bind the bast fibres to each other and to the central stem have rotted and decomposed. There are several methods of retting, each yielding a different kind of fibre. The best is running-water retting. The bundles are packed into straw-lined wooden boxes weighed down with rocks, and immersed in a stream. The retting will take from 5 to 15 days, depending upon the temperature of the water, and yields a strong, superior fibre of pale yellow colour. Pool or dam retting takes from 10 to 15 days, and yields a fibre of a bluish-grey tone. Bacteria in the water may speed the process, so care must be taken that the plants do not overret, as this will darken and weaken the yarn. In places of frequent rain and heavy dews — not many of

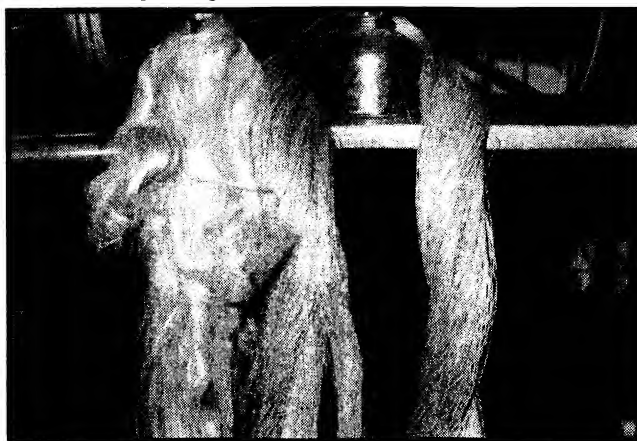
which are to be found in this sunburnt land — the flax may simply be spread on the grass and left for 3 or 4 weeks. Dew retting produces fibre which is strong and dark grey in colour. Also there are commercial chemical and mechanical processes, but these will not be of interest to GR folk. After retting, the flax is hung or stooked in an airy place to dry.

When retting is completed there are still three processes to go through which will remove the rotted 'glunk' and tease the flax into long silken swatches looking for all the world like a head of beautiful blonde hair!

The first is called 'breaking', and it is just that. Lie the bundles of flax on a solid bench and wallop them with a length of timber or a wooden mallet if that is found to be easier. This will break up the woody portion of the stem into little pieces. These are then separated by 'scrutching'. To scrutch, hold the bundles of flax against a solid wall and beat them with the edge of a suitably sized board — say a short length 25 mm (1 in) thick. The aim is to knock loose the broken pieces of woody stem which fall to the ground.

Finally comes 'hackling'. You will need a couple of hacklers, which are simply coarse combs, one finer than the other. Like the rippler, the hackler can be made of nails driven through a length of wood, and used with the points upwards. For hackling small quantities, dog or horse combs can be used. Dampen the bundles slightly before hackling, then draw them through the teeth of the hackler until they are clean, straightened and the short broken fibres removed. Then repeat the process upon the other end of the bundle. The first hackler is sometimes called a 'ruffler'. The process is then repeated using a finer comb. For really fine work such as fine linen fabric and lace making, sometimes as many as six successive hacklers are used, but for general use two are sufficient.

Hackling produces two kinds of fibre. That which remains in the teeth of the hackler is short, and coarse, and somewhat tangled. It is called tow, and may be carded like wool and then spun. The final queue or swatch is called 'line' and this is what is used for spinning.



A spinner will find spinning flax (left) into linen (right) easy, becoming adept after a little practice.

Spinning Flax

Spinning flax is not difficult. However it is different from spinning with wool and will take a little practice to become adept. You will have to remember to treadle your wheel anticlockwise. If your wheel is not fitted with a distaff, you will have to improvise one — a broom handle or a collapsed umbrella-swift tied to a chair will do. Also you will need a bowl of warm water into which has been stirred some hand lotion, or else fill the bowl with linseed gel. This can be made by boiling a couple of teaspoonfuls of linseed with a cup of water for a few minutes and straining off the liquid. Some old types of spinning wheels are fitted with a bowl or a socket in which a bowl or dish may be rested.

Pad the top of the distaff — which should be about head-high when you are seated at the wheel — with tissue paper, over which will be placed the 'witch's hat' carrying your flax. The witch's hat is simply a cone made from stiff cardboard in the shape of the traditional 'dunce's cap'. Some spinners dispense with this and just pad out the distaff with tissue paper to a cone shape.

There are two ways of dressing the distaff. First the spinner should be provided with the necessary items: a length of string long enough to go around the waist with a few centimetres over, an apron or a tea towel, about 2 m of ribbon and an armless chair. The tea towel is spread over the lap (some spinners prefer to work on a table instead).

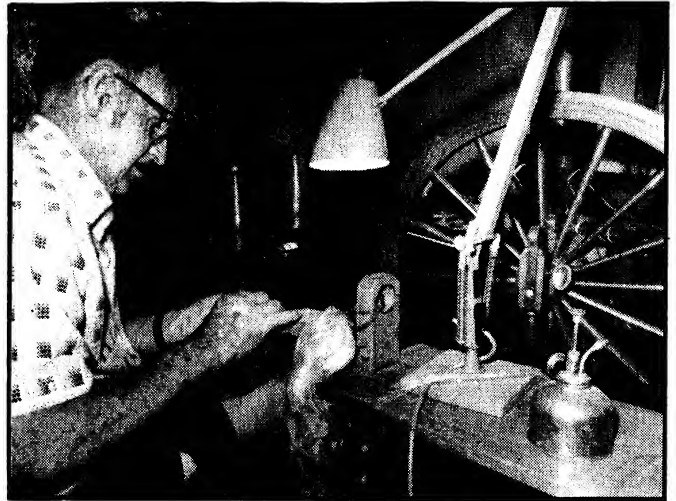
Give the queue of flax a final combing and remove about 50 g of line. Hold it by one end and shake it to open the fibres; if necessary it can be opened up by a final combing, or by bringing it down smartly on the table several times as though flogging it. Tie the string around the waist and tie the 'strick' or swatch of line being dressed firmly by its top end to the ends of the string.

Take the other end of the strick firmly in the left hand and stretch it out with tension across to the right. With the right hand pull a few fibres out from the strick, fanning them out and using fingers and palm to layer the fibres in a criss-cross manner, moving the strick to the left as you work. Having fanned the fibres out to the left, change the strick over to the right hand. Now use the left hand to work out more fibres while moving back to the right.

Work backwards and forwards until all the fibres are arranged in a fan-shaped fine light web. Now cut the tie at the waist and remove the string. Lay the distaff (padded), or the witch's cap, on the web with the top at the end which was tied to the waist. Now roll the distaff across the fibres, wrapping it completely in the web.

Pat the meeting point at the end of the fan and tuck in any loose ends at the bottom of the cone into the body of fibres. Fasten the flax to the top of the padded distaff or witch's cap with a firm knot tied in the middle of the ribbon; wind the ribbon ends criss-cross around the flax and fasten with a bow at the base of the cone. Not too tightly or you will not be able to draw the fibres.

In the olden days it was traditional for the colour of the ribbon to signify the marital status of the spinner: green for a



Murdoch Brisbane has his flax hanging near the wheel, while spinning. A water spray is handy to keep the material damp and pliable.

married woman and red for a single girl. Tie the distaff to a chair and place it on the left side of the spinner, or where it is most convenient, and the flax is ready to be spun by drawing it from the bottom of the cone.

Spinning flax requires a different technique than that used for wool. The flax must be dampened and needs a roll and twist operation. Moisten the fingers in the bowl of water or linseed gel, draw out some fibre with the left hand, twisting it between finger and thumb as you do so. Treadle the wheel in an anticlockwise direction and feed on with the right hand.

Another technique, used by some spinners, is to draw the fibres with the left hand and roll, twist and squeeze the yarn and feed it on with the right in a continuous operation. If the distaff has been correctly dressed you should be able to proceed without stopping until the bobbin is filled.

At first it may be expected that there will occur tangles in the web which will have to be eased out before spinning can proceed. The spun linen yarn may be softened by boiling it in soapy water and rubbing it several times to remove the traces of pectin. Either the yarn or the finished article may be bleached by washing in warm water and hanging in the sun, repeating the process a few times, or by washing and laying on the grass, when the oxygen given off by the grass at night will assist in bleaching.

Flax fibre is inelastic, so very fine yarn may cause problems in weaving by snapping when the heddles are raised. This is overcome by keeping the warps moist while weaving in commercial undertakings, but this process would present problems to the home weaver. The solution is to use thicker warps and work at a slightly lower tension than usual, or by plying the linen yarn with one of cotton, the resulting yarn being called 'cot-o-lin'.

The writer has not heard of linen being knitted, but there is no reason why it could not be knitted or crocheted in the same way as cotton.

Natural Goat Care

by Pat Coleby, Harcourt, Victoria.

The letters with queries have at last died down slightly (I had been receiving two or three a week). I hope that a few people are finding some of the answers in my goat book!

I have been thinking of writing an article on immunisation for a while now, and taking on a number of goats for the milk contract on a lease basis has stirred me into action and given me the push I needed. The new goats have all had the statutory immunisations, and in the two months they have been here, three out of the eight have had bad scouring attacks (the next best thing to entero toxæmia); and in at least one case it required stringent measures to cure them. They also appear to have a low resistance to worm infestation, and need at least three doses of Thibenzole before they recover. These things just do not happen in my own herd; the odd goat may become a bit loose inside, but a good dose of dolomite will right it. If not, I check back through my records and usually find that it is several months since it was last wormed, and after one dose, it is OK.

Now these new animals did not become ill the moment they arrived, so it was nothing to do with the change of environment (they have fitted in very well). So I have reached the conclusion that their resistance to infection is not what it should be, that their immune system has been damaged in some way. This may sound extreme, but I have given the matter a lot of thought over the years. During that time I have nursed about six cases of bad entero toxæmia (pulpy kidney) back to health, and in each case the animal came from another breeder and had been immunised.

Enterotoxæmia is caused by *Clostridium welchi D*, a bacterium that is always present in the intestines of the goat, presumably for the correct synthesis of food. When the digestion of the goat has been upset in some way, by worm infestation, starvation, over-feeding, sudden change to over-rich food etc., the bacteria multiply and discharge a toxin which is the cause of pulpy kidney. Goats that have been very ill with other diseases often succumb to entero in the end, due to extreme stress, but this can hardly be regarded as a reason for immunisation as the goat probably would have died anyway when it reached that state.

When I started keeping goats, the only book I had was David Mackenzie's *Goat Husbandry*, the most overworked book in the library! As he did not advocate immunisation and vaccination I did not do it — I was keeping the goats on a very thin shoestring anyway and did not want any extra expenses. None became ill, and the dreaded entero did not strike, so I came to the conclusion that immunisation and vaccination were a waste of time and money.

Not long after this the Werribee branch of the University of Melbourne Veterinary faculty came into being. I had taken them the first goat they had to treat. It had venereal arthritis — an untreatable case as it turned out and I lost a very good buck. However, they used my goat herd as a training ground for the student vets, and as a result, did my vetting at a very reasonable cost for a long time.

One year when they discovered, to their lively horror, that

I did *not* vaccinate my goats, they insisted on doing the whole herd at their own expense. I did not worry too much since they felt so strongly about it. But not long after the herd of twelve had been vaccinated, I noticed swellings on the sides of their faces which turned out to be Caseous Lymphadenitis (CLA), grass seed abscesses caused by *Corynebacterium pseudotuberculosis* that are virtually incurable. The veterinary students rushed about doing tests on various stages of the abscess, and I cleared up the messy burst ones. Eventually the outbreak wore itself out with the loss of only one goat; the abscesses went right through her system, finally finishing up in her lungs.

I did not connect the outbreak with the vaccination until many years later, when I was asked at various times by different goatkeepers if I had noticed any correlation between the two. Now I do connect the two, but I do not think that the vaccination *causes* the CLA, rather that it lowers the resistance of the goats to the point where they may be more susceptible to the disease. It is possible that some of the other diseases that seem to be plaguing the goat industry at present can be attributed to the same source. Anyway, I never again had my goats vaccinated for entero (I think the University became bored with chasing me up) and I have certainly never regretted it.

Unpleasant flavours in milk have again been causing a problem. A test will show perfectly clean milk with a good count but a 'goaty' taste can be detected either as soon as the goat has been milked, or, as it happened in my case, becoming evident after a few days. I had doubled the dolomite ration when the capeweed was at its height to offset the acidity of the nitrates in the capeweed. Large amounts of dolomite depress copper over a period of time, so I did not want to continue feeding that quantity for any longer than necessary. When the capeweed started to die down I dropped back to the original amount — two heaped mugs a day between 35 goats. A week later my milk contractor inquired if I had changed the feed at all as he had had two people phone about milk that had developed a slightly 'goaty' taste after about five days. So I went back to giving them the full amount of dolomite — the capeweed is obviously no longer lethal, but it is still strong enough to impart a 'goaty' flavour to the milk. One or two does (usually the older ones funnily enough) required a vitamin B12 injection as well to return their milk to an acceptable flavour.

Years ago when the University was still looking after me, I found the milk had a very strong flavour, so rushed a sample off to them to find out why. The report came back — it was the cleanest milk they'd ever tested. Why had I sent it down? I asked them if they had tasted it, and not unnaturally received a very indignant denial. So out came Mackenzie and after a lot of digging around I found the answer — vitamin B12. Two injections of 1 cc each on two consecutive days and the milk was back to normal. Whether it would have been if I had doubled the dolomite I don't know, but I do know that if there is an unpleasant taste in the milk try the dolomite first because

it is cheaper and easier, and then the vitamin B12 — one or the other has always worked.


I hope that by this time all your kids are a well grown, well-behaved lot, who should all come when they are called, be leading nicely, and *not* have learnt to jump fences. This is the best time to train your future goat herd — much easier than trying when they each weigh 100 kg, and have learnt to jump anything in sight!

By this time the August drop can be down to a single milk feed a day (about a litre or so each), they should be eating their minerals in their hard feed, and plenty of grass. If that is not available they should have plenty of hay. They do not need more than a small handful of hard feed per day, but they should be having that, otherwise they may not learn to eat hard feed at all and it is extremely difficult to train them when they are full grown if they've never been taught when young.

Quassia Spray for Possums

If possums are eating the fruit on your trees, use a spray made by stirring one teaspoon of quassia chips into a gallon of water. The spray makes the fruit taste bitter and the possums leave it alone. Wash fruit before eating. Quassia chips are available from The Fragrant Garden (see p. 69).

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MOORA-MOORA FESTIVAL 1984

The theme of the Moora-Moora festival in 1984 will be keeping the body and mind happy, relaxed and healthy.

Through the years, the Moora-Moora festival has developed a warm, friendly spirit, with a happy, relaxed atmosphere. For many of our friends it is a regular event on the calendar, and we at Moora-Moora look forward each year to meeting old friends, and making new friends.

Many people come along to have a look at the progress of our community, which has been accelerating in the last few years. Membership is still growing and new houses are being built in cluster 5, the last to get under way. Other clusters, or hamlets, are nearly filled and are tackling the challenges of living together.

The festival is to be held on Sunday 26th February with tours, demonstrations, displays and talks. Methods of building in mud, stone and rammed earth will also be demonstrated on the day. There will be lots of things for children to see and do, and music of various types, especially folk music, live throughout the day. In the evening there will be a bush dance and, because it is a Sunday, the dance will start early. Children will be encouraged to join in.

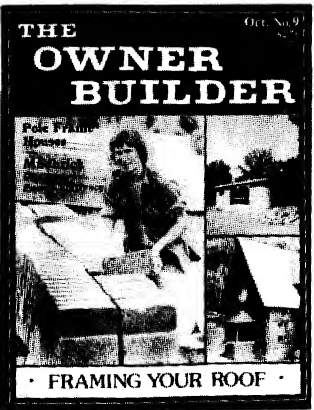
Displays, talks and practical sessions on many aspects of alternative health methods will take place throughout the day. There will be massages available from experts (or do it yourself).

At the last festival the beginnings of a school could be seen. The school has progressed very well over the year, with pupils from within the community as well as from surrounding towns. The new building has grown, and is virtually ready for the roof.

The school is set amid the fields which border on the tall forests at the top of Mt Toolebewong above Badger Creek. This pleasant rural setting is a great advantage as both the forest and the farm offer stimulation and interest, and plenty of scope for guided investigation. Lyrebirds, wombats and other wildlife abounds. There is plenty of room for playing and exploring, and a trampoline is set in the ground next to the school building.

Being situated in a community means that the children have an opportunity to meet and talk to the range of adults who come to the school to share their knowledge and skills with the children. Apart from the 3 Rs, classes include pottery, art and craft, music, science, piano, dance and drama.

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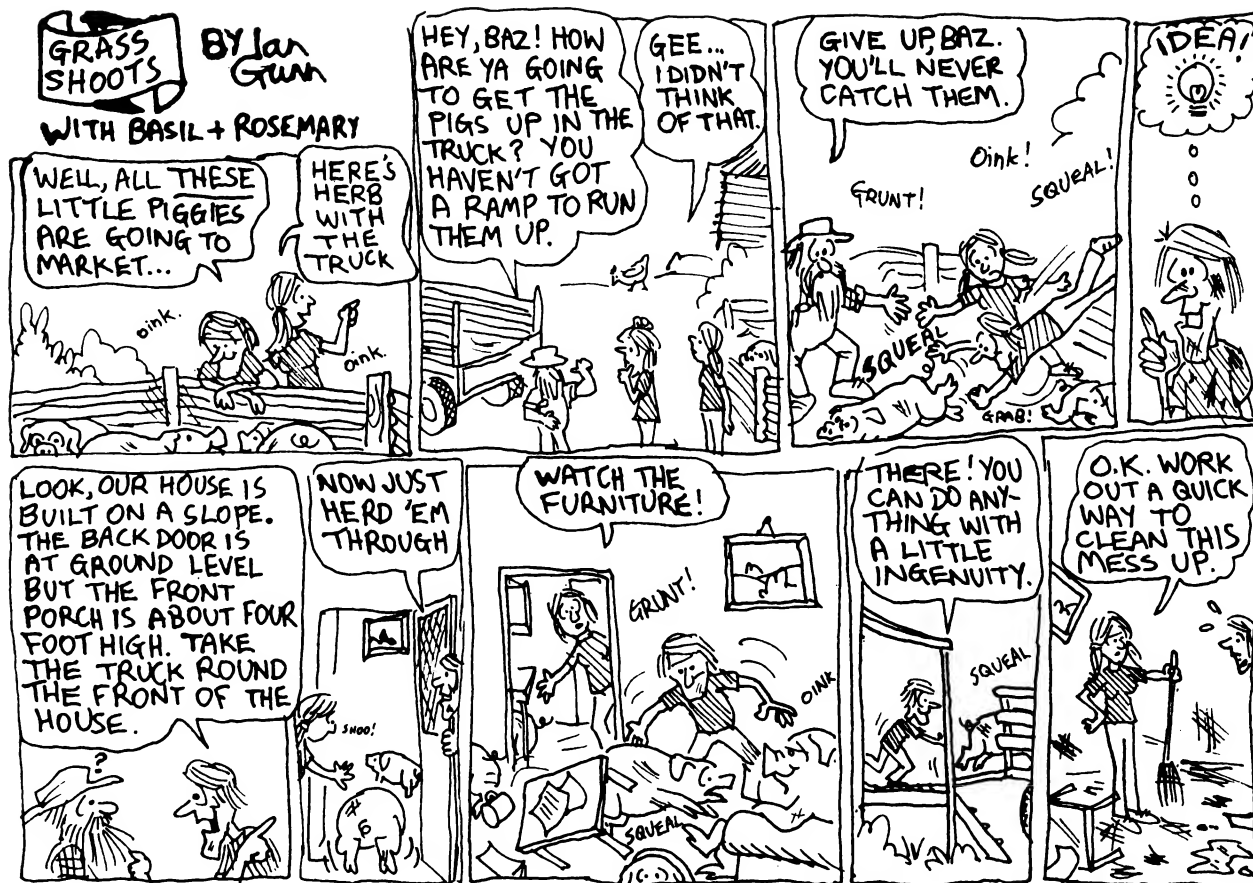
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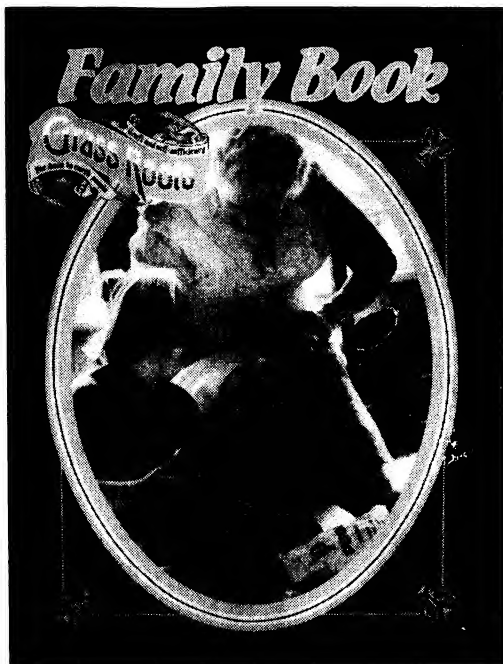
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THE GRASS ROOTS FAMILY BOOK

The Grass Roots Family Book is a surprisingly diverse collection of Australian family lifestyles described in that matter-of-fact way that has become the trademark of Grass Roots. It is a collection of readers' stories of how they have welded the new and the old together to forge something unique and personally satisfying in a world that for many is changing far too quickly. Many feel trampled by progress, isolated or redundant through unemployment, and others simply feel they just cannot keep up the pace. Each has something to offer, something unique from which we can all learn and their openness is touching and inspiring.

The Family Book may point you in a different direction, show you how you can change your family structure for the better or remind you of the values you hold dear that are too seldom expressed. Regardless, it is a book of life's adventure, to be read for the wisdom, the joy, the sorrow, and for the very vibrance of life itself radiating from every page.

Price \$6.50 includes post and packing.

THE GRASS ROOTS BUMPER BOOK







Ever wondered how to make your own presents, your own gift and greeting cards and even how to keep the children occupied during holiday periods? Well there is all that and more in *The Bumper Book*. In this special Grass Roots publication, readers have come together in a Christmas celebration and offered to share their thoughts, philosophies and ways of living in their usual jolly, straightforward fashion. There are stories about self-sufficiency in Japan, Christmas in Holland, living in a converted dairy in New Zealand, and renovating a two century old home in Wales, as well as plenty of fact and fancy on life in Australia from the outback to the semi-urban. As usual, there are plenty of activities and these include homespun slippers, knitting a teddy bear, how to create applique bags and cushions, preserving herbs, printing your own wrapping paper, making gift and greeting cards, herbal gifts, papermaking and more. As well there is a giant section of ideas, activities and resources for keeping the children occupied during the holidays. And the mechanically minded can drool over a plan for a simple 12 volt waterwheel that has been working on the owner's property for fifteen months.





The Bumper Book is crammed full of the joy of living. It is certainly a delight to read and one that will be recalled often.

Price \$4.50 includes post and packing.



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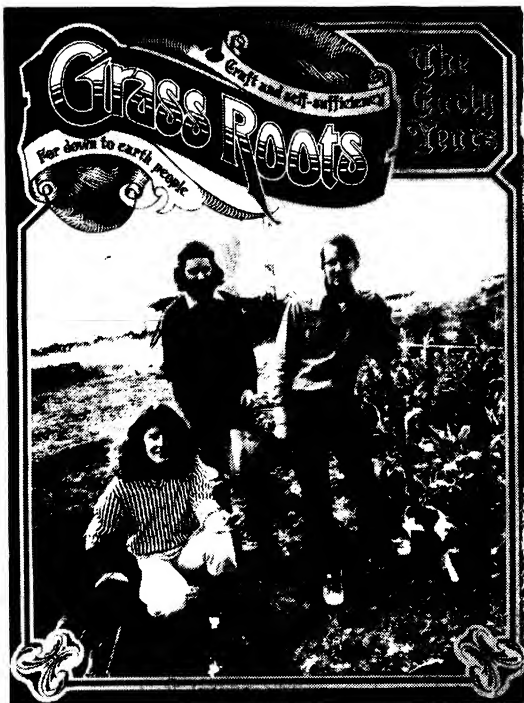
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THE EARLY YEARS

Grass Roots, craft and self-sufficiency magazine, was first published in 1973. Since that time, readers from all over the country have been sharing their enthusiasm for a more independent lifestyle and passing on the skills and know-how needed to achieve it.

This book is a reprint, by popular demand, of the first five issues of Grass Roots which have been out of print for some time. In its pages will be found an amazingly thorough collection of hard-to-find information from making sleeping bags, insect sprays or dandelion wine to training a horse to pull a jinker, knitting straight from the fleece or raising an orphan lamb. As well, because the information is from the very first issues of Grass Roots, the book contains very basic recipes and instructions for making bread, butter, cheese, yoghurt and even sandals, flutes, and wattle and daub buildings.

Although *The Early Years* is an extremely useful reference, it is more. The warm, companionable feelings of those folk trying, failing, trying again and finally succeeding shine through its pages providing the stimulation needed to make your own personal choice of lifestyle a success.

The Early Years has just been reprinted.
New Price \$14.50 includes post and packing.

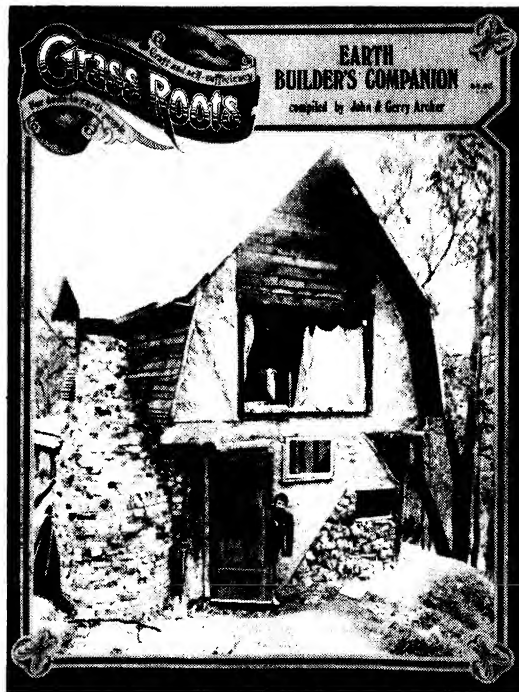
THE EARTH BUILDER'S COMPANION

The Earth Builder's Companion is a manual on how to design and build your own earth house. Folks have been building these dwellings for centuries and many are still standing long after their builders have passed on. Earth is cheap and plentiful, so is your own labour; inside this book is the information you need to put a roof over your head without council hassles or a 25 year mortgage. *The Earth Builder's Companion* is full of illustrations of early and modern earth houses and contains practical advice on:-

- a modular house — how to build in stages
- design — principles and application
- low energy housing — orientation and eaves design
- councils and building regulations — how to approach them and where to go for help
- site preparation — levelling and layout
- foundations — all about concrete slabs as well as other low-cost methods
- making mud bricks — soils, sizes, methods and testing
- erecting the walls — laying bricks, different technique
- rammed earth — complete details on this method with examples of forms and modern ramming equipment
- roofs (including sod), floors, adobe fireplaces and mud cooking stoves
- coatings for earth walls.

Even if you are not going to build a barn, shed or mud brick toilet yourself, here is what others are doing for perhaps half the price.

Price \$5.40 includes post and packing.



Grass Roots Binders: these are made from tough, dark brown vinyl with a white logo. They hold 8-10 magazines as well as *The Early Years* and any of the *Companions* or *Bumper Book*. An ideal way to keep your library together and prevent the neighbours pinching your back copies. Price \$7.50, includes post and packing.

SETTING UP A WATER SUPPLY

by Andrew Blair, Oxley, Victoria.

Our land had one small dam on it, shared with neighbours and only 2 metres deep, so we had to establish a better supply for our stock and garden and a separate supply for the house. We have made a lot of mistakes in our efforts, and perhaps by writing about them I can save others from making the same errors.

The little dam would dry up entirely in a dry year, so we were told. This stands to reason since the evaporation from a free surface of water in this district is about 2 metres a year. This meant that even if we used no water at all, the dam would dry up unless there was summer rain sufficient to cause runoff. For this reason we had the dam enlarged to about 4 metres deep and had it built entirely on our land, so that there could be no argument as to the amount of water we or the neighbours were using.

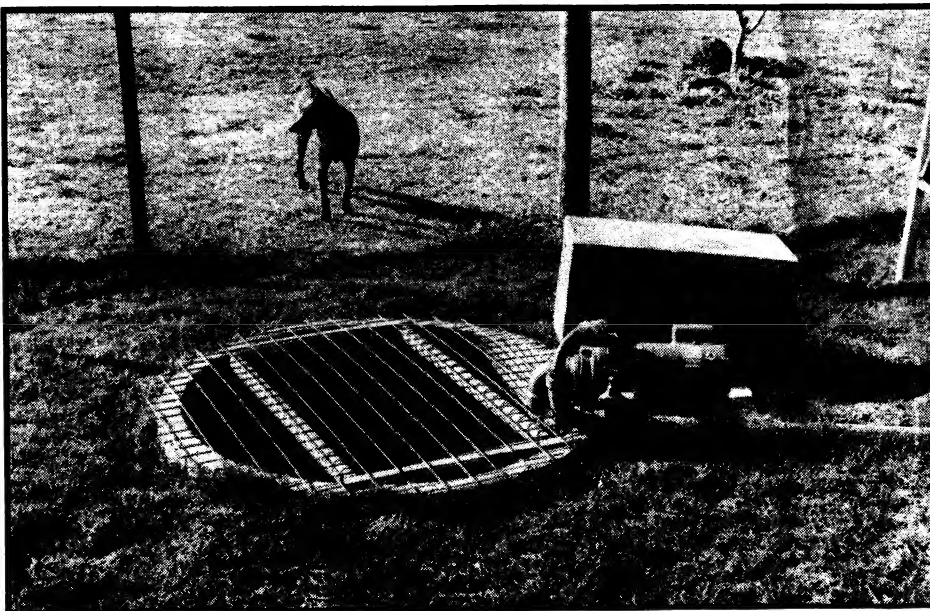
At this stage our cattle had to walk the entire length of our narrow property to get water. Nearly a kilometre, as the dam was at one end. A polythene pipe was laid about three-quarters of the way back and connected to stock troughs. This meant that the stock could graze the back of the property and still have water without a long walk to the dam. In summer, unless the water is handy, they are just not prepared to go right to the back. At the time we did not have electricity connected, so we built a tankstand and put a 7000 litre (1500 gallon) tank on it. A second-hand petrol motor and a centrifugal pump were used to fill the tank. We used to put petrol in the motor, then leave it going. With a bit of practice we were able to judge exactly the right amount of petrol required to fill the tank. A float indicator showed the level of water in the tank.

Later, when the SEC was connected, we installed an electric pump. The pump was turned on automatically by a float switch in the tank when the water level dropped to about half full, and turned off again when the tank was full. Another switch enabled us to turn the pump on even if the tank was full,

and this gave a good pressure throughout the system while the pump was running.

We still find that our dam goes dry in a year when there is very little or no surface runoff. When this happens we use underground water. A neighbour told us that it would have been cheaper not to have put in the dam but to have dug a well or a bore in the first place. He was correct, but we like our dam! We have fish in it, our children swim well because they spend their summer holidays in the dam, it attracts ducks, pelicans, spoonbills and other wildlife, and adds the beauty that only water can provide in such a dry landscape in summer. The underground water is good, but even so it contains more salt than the dam water which we prefer to use on the garden.

Our attempts to use the underground water have been a costly experience. We first dug a bore by hand. The auger made a 15 cm (6 in) diameter hole and we got it down 14 m (44 ft) before we reached a gravel layer that we could not penetrate. We lined the hole with heavy PVC sewerage pipe (not light-quality stormwater pipe). We bought a second-hand windmill and with the assistance of an experienced plumber set the mill up over the bore. It was a pleasure to see the mill pumping up the water. Our joy was short-lived, however. After only a few months the pump became blocked up with sand, so we pulled it up and cleaned it out. We used an electric pump to draw a lot of water and sand out in the hope that this would overcome the problem. However it happened again several times. We then installed a fine screen to keep out the sand; this didn't work because although it was the finest screen available, the sand was finer and again blocked up the pump on the mill. Finally we removed and sold the windmill. Next we used our pump to lift the water out using an injector. This worked quite well, but the bore did not make very much water. The cost of the electricity was considerable,



This deep-well injection pump, although expensive, gives us trouble-free operation.

but it did provide us with water through a summer and an autumn when the dam had dried up.

When we set up the Alternative Technology Centre we decided that we would have to use the underground water for the toilets. This time we got a team in to dig a well. (They had equipment that we did not have. Apart from this, a friend of ours dug his own well using unsatisfactory equipment and nearly killed himself when a bucket full of dirt hit him on the head.) The well is 10 m (32 ft) deep and lined with concrete well rings 120 cm (4 ft) in diameter.

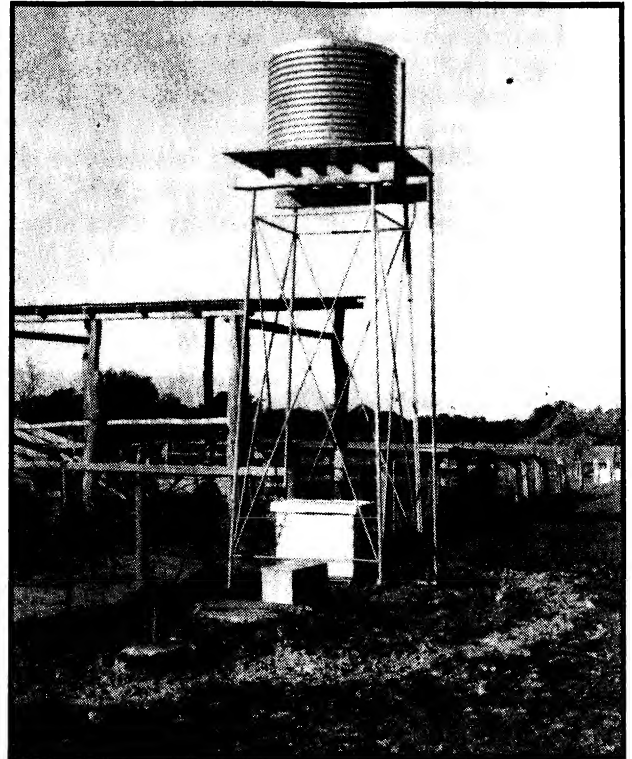
We mounted a second electric pump down the well about 2 m above the water. In theory it should have worked well, but it didn't. It kept losing its prime, so finally we bought a deep-well injector pump, and using the injector we had used before we now have a good system with lots of water. The sand remains in the bottom of the well. We could use a windmill again, but the very time that we use the well water most is during droughts, and these are the times that the wind does not blow very much.

If our object had been to obtain the cheapest reliable water supply possible, then we should have sought the advice of one of the local pump suppliers. They know their job. With a well and a pump we could have saved the expenses of: enlarging the dam; the cost of two pumps; the cost of the windmill, screen and their installation; quite apart from the time involved in digging the bore and cleaning out the windmill pump. We have learned a lot over the years by making these various alterations. We wouldn't want to be without our dam either, but the cheapest job would have been to have the expert do it all, right from the start.

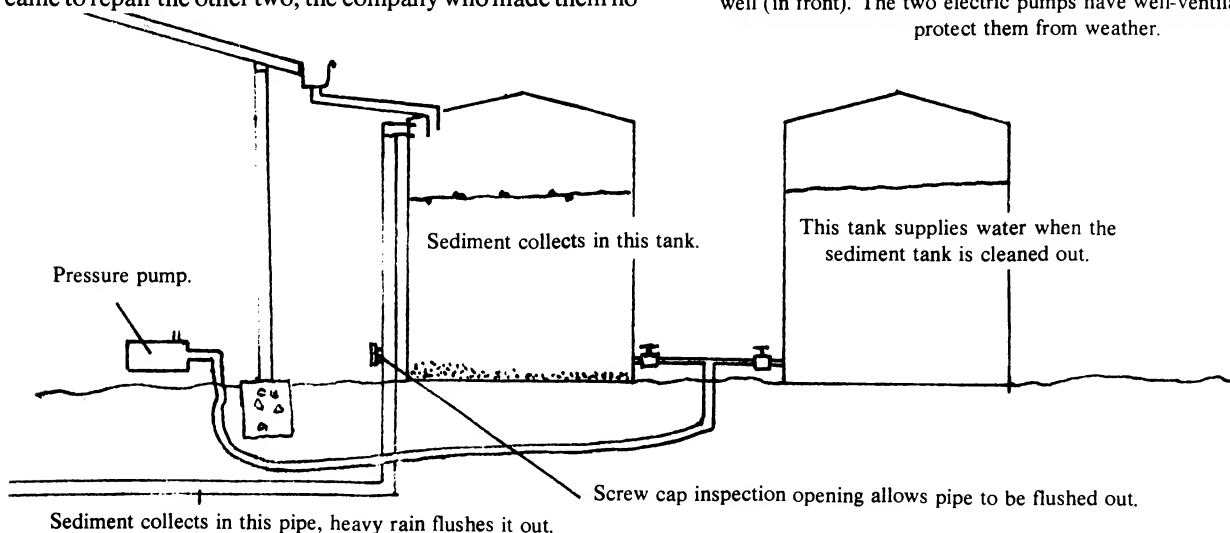
The house water supply is not quite such a story. The first building we erected was our farm shed, and we lived in it for a while before we built our house. The water from our shed roof drains into three 23,000 litre (5000 gallon) transportable concrete tanks. All the tanks leak as the result of cracks that they have developed; they do not leak badly, but do let a drop of water go, perhaps up to 2000 litres a year. This seems to be a common complaint. Nobody that I've spoken to about it who has tanks of this type, of chicken-wire and laminated-cement construction, has had them not crack. We had the first one repaired under the 25-year guarantee, but when the time came to repair the other two, the company who made them no

longer existed and the takeover company would acknowledge no responsibility. If I were going for a new tank I would select a concrete tank vibrated in a mould, either transportable or made on site.

To have three tanks instead of one big tank was not a mistake: at Christmas time our roof spouting fills with beetles and when they are carried into the tanks they make the water stink; a lot of dirt and leaves also gets into the tank. With the water from the shed and the house going into the one tank, all the muck can settle or float in that tank. The others keep clean. We clean out the dirty tank when the beetle season is over and rely on the water from the other two tanks until it rains again. This would not be possible if we had only one tank. There is a tap at the bottom of each tank; each tap is connected to a pipe that feeds to our pressure pump and this in



The farm water supply is pumped into this tank from either a dam or the well (in front). The two electric pumps have well-ventilated covers to protect them from weather.



turn supplies all our house water. We switch the toilets over to underground water when the tanks are low, but as yet we have not run out of rainwater in the seven years we have been living here. Our annual average rainfall is 650 mm (26 in).

The pressure system is level with the bottom of the tanks, so with water in them priming is not a problem. It has given no trouble in the time we have had it. The fact that it is in a shed and protected from the weather no doubt helped. From the pump to the house we have used 25 mm (1 in) pipe, so that if eventually we want to feed the water to the house by gravity, from a tank on a stand, the flow rate will be acceptable.

By using rainwater through the house, our pipes, hot-water service and taps should last much longer than if we were using the more corrosive underground water. Rainwater also tastes better!

To keep the insects out of the tanks we tried making little strainers out of fly wire and putting them in the downpipe pops. These were a failure as they became blocked in no time, and the spouting overflowed.

This is a general outline of what we have done. A few more details may be helpful.

Pipe

Polythene pipe would have to be one of the best things ever invented, but it does have its limitations. If using a ripper on the back of a tractor to lay the pipe, make sure that the furrow is as deep as you want before trying to bury the pipe. If you can't get it deep enough go over it again and again. If it

still won't go deep enough, wait until it rains to soften the soil. A pipe at the surface or just beneath is sure to be 'found' sooner or later. Pipe-laying rippers often put shallow scratches along the length of the pipe and although it may not leak immediately, it can in a few years' time.

A trench digger of the Ditch Witch type is expensive to hire, but the pipe can be buried deep in the ground where you can be sure that it will not be damaged by cultivation. You can also be sure that the pipe will not be scratched or cut as it is laid in the ground. In rocky country, stones can be a real problem. Soil or sand around the pipe should protect it from damage caused by sharp stones.

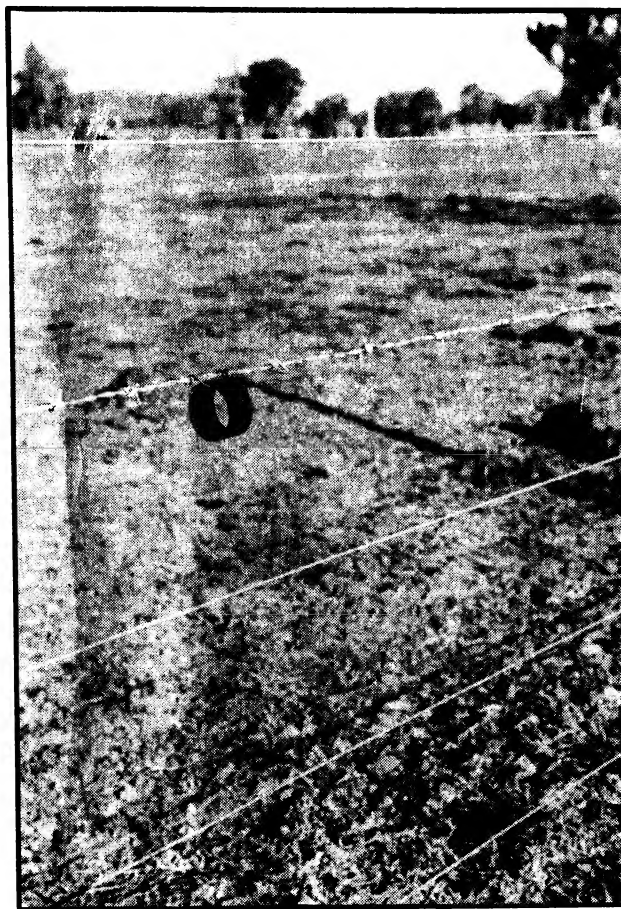
If you kink the pipe, and most people do at some stage, cut the kinked section out. Always have a couple of joiners on hand so that if a section of pipe springs a leak, it can be cut out and replaced.

Temporary polythene pipes lying on the ground tend to become permanent. Take the time to bury the pipe right from the start, otherwise sooner or later somebody will drive over it or get caught up in it. If the pipe must sit on the surface (in rocky country for example), use steel pipe. Fires have a devastating effect on poly pipe, and the very time that you want the water is likely to be when a ground fire has burnt a hole in the pipe.

I learnt why polythene pipe is not used for internal house plumbing: in one experimental setup, I had some in the ceiling. After a hot day, a fitting came off the end of the pipe



This easy-to-make water level indicator is made from a V-belt pulley and stainless steel or brass chain. The float inside the tank is two 1-gal plastic bottles, one with water in it. The rod that the pipe slides up and down is 1.3 cm ($\frac{1}{2}$ in) galvanised pump rod.



Wiring a small piece of pipe to the fence it goes under can prevent accidental damage.

and flooded water across the ceiling. For house plumbing, copper pipe is reasonably easy to use, and with good water has a very long life. If exposed to severe frosts, copper pipe will burst, but new steel pipe seems to withstand them.

Taps

Garden taps are best set on posts supplied by a galvanised steel pipe, attached underground to the polythene pipe. This way the poly pipe is not subjected to stress when the tap is used, and the steel pipe is not affected by fire, mowers etc.

Pipe Sizes

If you have good water pressure it is possible to use a much smaller diameter pipe than if the pressure is limited. Our land is flat, so our pressure is low from the tank on its 5-m stand. As a result we have used 30 mm (1¼ in) pipe to all our garden taps and stock troughs. If we had used 25 or 20 mm (or ¾ in) pipe, the flow of water would have been restricted too much, particularly when several cattle drink from a trough a long way from the tank. When the pump is running and giving a good pressure it is possible to run several sprinklers without a severe drop in pressure due to the frictional resistance of the pipe. Garden taps are mounted on 20 mm pipe, but as each length of galvanised iron pipe is only about a metre long it is of little significance.

For the plumbing within the house, 12 mm (½ in) pipe is satisfactory if you have a good pressure, but I prefer the main runs to be 20 mm, with the last few feet to each tap 12 mm pipe.

Fittings

Some fittings are not suited to low pressure. Our Display Centre drinking fountain put out a pathetic dribble and was obviously designed for a greater pressure. Our toilets originally took several minutes to fill, which is quite unacceptable when we have a busload of visitors. We replaced the high-pressure ball valves with low-pressure ones.

Copper and brass plumbing fittings are expensive. There are cheaper fittings available, but they are not always satisfactory. I have had cheap gate valves that do not close off properly, so I do not buy them any more. I have also had cheap compression fittings which have had holes in the brass, and which had to be replaced.

Tankstands

Our tankstand is made of galvanised steel pipe, with all the joints welded. Each side is braced with diagonals so that it does not slew sideways as many wooden tankstands seem to do. The welded joints are painted with cold galvanising paint straight after construction, before rust has a chance to get started. The legs are set in concrete blocks. If the concrete blocks are not big enough the legs are likely to subside into the soil; a 45 cm (18 in) cube for each leg should be adequate.

We used green-timber bearers to support the tank, and they bowed with the weight of the water in the tank. As a result one of the seams in the bottom of our galvanised tank stretched and sprang a leak. This had to be repaired, as did the outlet at the bottom of the tank. The outlet was the usual socket soldered into the bottom of the tank, and with the pipe that was screwed into this moving, the solder had cracked. I would not use other than a screwed clamp outlet now, as they seem much more satisfactory.

Hot-water Systems

It is possible to get into strife with wood-fired hot-water systems. I know of two people who have had troubles. One man was convinced that as long as he didn't let his wood heater boil the water he would not need a vent on the system. (His supply was from a tank on a nearby rise requiring a vent 4 or 5 m above the roof of his house, which he didn't want.) So he set it up without a vent pipe and was careful that the water didn't boil. One night however, when his wife ran a bath of hot water flat out, the water ran out of the storage cylinder in the ceiling faster than it ran in from the tank on the rise. As a result the hot-water cylinder collapsed inwards and had to be replaced — this time with a vent pipe.

In another case a similar collapse occurred when a hot-water cylinder, mounted out in the open under a tankstand, had the vent pipe and the cold supply freeze. The hot pipe out was lagged and remained unfrozen, so that water ran out when the hot tap was turned on, causing the cylinder to collapse. A well-lagged vent pipe would have prevented this. There is a rubber insulation available that would be quite satisfactory for the job.

Old taps often become very difficult to turn off, and a new washer makes little or no difference. This is usually because the thread section becomes worn and very loose. As the tap is turned off it tends to bind. The only way to overcome this problem is to replace the threaded section that screws down, or the complete tap.

Roof Guttering

We decided to have the job of putting the spouting on our house done properly by a plumber. A couple of years later we had a heavy hailstorm and the spout was nearly pulled off as it filled with hailstones. The plumber had decided to save a few dollars by not putting on enough spouting brackets. When we built our Display Centre we did the spouting ourselves, putting the brackets at 900 mm intervals. The job is well done, the spout is straight, and it has no leaks. The lesson here is that you have to get the right person to do the job, if you want it done properly, and often with a little experience you will do it better than the professionals.

Roofing

We have put roofs on several buildings. Corrugated iron is a favourite material as it makes a good roof. It is a much better job if the iron is screwed on rather than nailed, but it takes a lot longer, and the screws are more expensive. Nails tend to lift after a while. Our house has an iron roof which we screwed on. We did it all ourselves, screwing in the 2500 screws with a brace-and-bit screwdriver. There have been no leaks, but we did it according to the iron manufacturer's specifications. A nearby house built at the same time, with the same iron for the roof, was done by a tradesman. He used half the number of screws and the roof leaked badly. Some of the screws missed the battens completely.

No doubt these stories of poor workmanship by tradesmen seem to contradict what I said earlier. They don't really. The moral is, if you use professionals, make sure they know what they are doing; and if you decide to do it yourself, get your information right and use the correct equipment. With a little skill and experience, you *can* do a good job yourself.

ALCOHOL FUEL

a cheap alternative

Part II

by Armin Hubert, Cooktown, Qld.

In the first article in this series (GR 40) I gave an overview of the processes involved in making fuel-grade alcohol for use in internal-combustion engines. The basic requirements are a cheap source of grain, a cheap source of heat (ideally methane gas from your own biomass pit), some home-made special equipment, and a good deal of time and energy. In this article I will describe two processes that are carried out prior to the actual distillation — mashing and fermentation.

Selecting the raw material

All my experiments in producing alcohol were carried out using corn as the basic raw material. Corn gives one of the highest yields of alcohol per ton of grain — around 70 gallons — and at the time of the experiments it was cheap and readily available. However, in making fuel alcohol one is by no means confined to using corn: a variety of different feedstocks can be used, and Table 1 shows a selection of these with approximate yields. I should add, however, that since all my work was with corn, any reference to other raw materials does not come from my own experience but has been gleaned from other sources.

The most important factor in the selection of a feedstock is its availability in your area. For instance, if sugarcane was readily available locally, you would do well to use it in spite of its relatively low yield. (Sugarcane has the added advantage that it does not need to be mashed to extract the sugars for distillation; it is sufficient to mulch the cane to extract the juice and to test the sugar content with a hydrometer.) On the other hand, it would be impracticable to choose sugarcane in Victoria, or wheat in the granite belt of Queensland, where there is an abundance of fruit.

Fruit does not have to be of good quality, of course, and can be used very successfully if it is bruised or over-ripe. Orchardists might be only too happy to let you remove spoil fruit from the ground or rubbish heap. Outlay might be confined to the price of a couple of beers! Another possible source is fruit-processing factories, who might be happy to

dispose of waste cheaply. This does not apply to grain, where there is very little waste; but you may be able to buy it cheaply, particularly if you know the farmer. Grain might be exchanged for labour, or a service. If feedstock has to be bought, the cost of your fuel will be increased, which is not the object of the exercise. So if your feedstock cannot be had very cheaply, you must grow your own. Corn, which I used, can easily be grown or obtained in many areas of Australia.

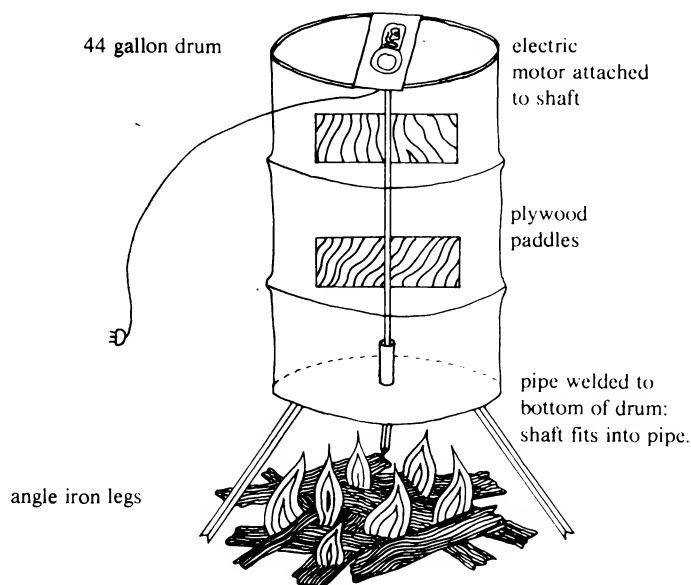
The mashing process

The mashing process consists of making a kind of soup, in which sugars are released from starches in the grain. For this process corn must be ground to the consistency of coarse sand (too fine and it tends to clog and stick, making the mash difficult to stir). The mash is made with two parts water to one part grain. Enzymes are added to break down the starches, and this part of the process is known as malting. As I mentioned earlier, sugarcane does not need grinding or mashing. But the extra steps involved in using grain are not so complicated as they might sound (once you've done it a couple of times and made a few 'blues', as I did), and the extra effort is made worthwhile by the fact that grain has the benefit of large yields of alcohol.

Once the grain has been ground, we need a vessel to cook the mash in. Any large container will do, for instance a 44-gallon drum, but it needs an opening so that the mash can be stirred throughout the cooking process. Stirring can be done by some mechanical device or by hand. The latter method is extremely tiresome, however, and with ingenuity some kind of agitator can be made quite easily. I used a small

Table 1

	gals/ton
Whey	78
Wheat	70
Corn	69
Raisins	67
Sorghum	66
Rice, rough	66
Barley	65
Rye	65
Dried prunes	60
Molasses	58
Oats	53
Dried figs	49
Wood, agricultural waste	39
Sweet potatoes	28
Yams	22
Potatoes	19
Sugar beets	18
Fresh figs	17
Artichokes	16
Pineapples	13
Sugar cane	12
Grapes, apples, apricots	11
Pears, peaches, plums	9
Carrots	8



geared motor, mounted on top of a 44-gallon drum, having a shaft with two wooden paddles which rotated slowly. This device took me two hours to make and did the job very well.

Prior to cooking, adjust the acidity of the water to pH 4.5-5.0 (very slightly acid). To measure the acidity of the water, a simple kit of litmus paper can be purchased from swimming-pool suppliers. (See Table 2.) Now cook the grain and water mixture at a slow boil for about 30 minutes. This helps to swell the grain and gelatinise the mash, and also destroys organisms that could interfere with the fermentation. Like the feedstock, your heat source should cost you as little as possible: waste products are ideal, e.g. corn husks and cobs, scraps of wood and so on, and methane gas. Of these, methane is by far the best.

After 30 minutes of cooking the mash needs to have more water added, since by this time it is too thick and concentrated for malting. The same ratio is used: two parts of water to the original one part of grain. The water also has the effect of cooling the mash before the enzymes are added. The enzymes that I used were bought from the USA, but they are available here. You can in fact make your own malting enzymes by sprouting barley (just as you would bean sprouts or alfalfa). When the sprouts are about an inch long, they should be harvested and ground, but the malt has to be used immediately or it will spoil. The simpler way, of course, is to buy the enzymes. Commercial ones are much more concentrated, but they cost money. I used Taka-therm; others are Termamyl 60 and Tenase. You need to use about 1 part enzymes to 100 parts of solids, and about 10 times this quantity for home-made barley enzymes or barley malt.

Once the enzymes or malt have been added the mash has to be stirred constantly in order to expose all the solids to the enzymes. It must be heated to 62°C (145°F), *but must not exceed 82°C (170°F)* or the enzymes will be destroyed. This process must be continued for 30 minutes.

To determine whether all the sugars have been released, take a small amount of the liquid and add a few drops of iodine. If nothing happens, then all the sugars have been released and the malting is complete. If the sample turns a blue-black colour, then the malting process is incomplete. More malt or enzymes must be added and the process continued for 10 or 15 minutes before testing again. Repeat these steps until the liquid tests clear. A rough estimate of the amount of unconverted starch is provided by the colour of the liquid on testing: the darker it is, the larger the amount of unconverted starch.

Malting

For grain-type feedstocks a premalting process is recommended. Ten per cent of the enzymes to be used are put into the mash before the cooking process begins, while the mash is cool, and stirred for a few minutes. This prevents the mixture from becoming too gelatinous and starts off the starch-to-sugar conversion, ensuring a more complete process.

Measuring the sugar content

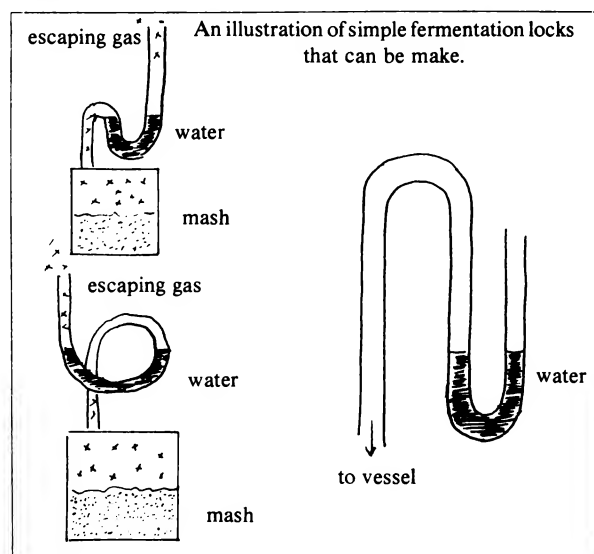
The sugar content of the mash after malting is of critical importance to the fermentation process, and must be measured. A special sugar hydrometer, available from any instrument manufacturer or sales outlet, can be used, but is rather expensive. An ordinary all-purpose hydrometer with a scale

can be used. Most hydrometers have a scale that reads from 1.000 to 2.000, and you can determine the sugar content as shown in Table 3. This test should be carried out at 20°C (68°F), the temperature at which the specific gravity of water is 1.000. Some hydrometers are available with a scale in degrees Balling. This type is very easy to use, because the degrees indicated show the sugar content. For example, 16° would indicate a sugar content of 16% (which is close to perfect).

Now that we have the right sugar content in our mash we come to the final step before the distillation process — fermentation. Yeast is added, which converts the sugars in the mash to alcohol. Fermentation has to take place in an airtight container, so as not to let any unwanted bacteria into our brew. If this happened, then instead of alcohol we would end up with vinegar — and I don't think the engine has yet been invented that will run on this.

A simple fermentation vessel is a 44-gallon drum with a press-on lid, but anything similar will do. As the yeast breaks down the sugar molecules, carbon dioxide gas is released, and alcohol remains in the mash. In actual fact we are making a beer. As the yeasts do their work, the brew will foam and bubble, just as in a 'home brew'. This raises the temperature of the mash, but as long as it remains between 22 and 32°C (72 and 90°F) everything is OK; if the temperature rises above 32°C, however, some form of cooling will have to be implemented (cooling coils or ice).

Now, since the fermentation vessel is airtight, the carbon dioxide gas has to be able to escape, otherwise the whole lot could end up around our ears. To allow this a simple device known as a fermentation lock is used. Locks can be bought or easily made from clear plastic tubing. A large diameter tube is desirable. The lock consists of water trapped in a section of a loop in the tube. Carbon dioxide gas is allowed to escape by bubbling through the water, but air is not allowed in.



One further point to remember: the fermentation vessel must be resistant to corrosion. If not, some form of liner may have to be used. Cleanliness is very important in the successful production of alcohol, and after use all containers should be scrubbed out until they are spotlessly clean.

Table 2**pH test**

1.0	very acid
1.5	
2.0	
2.5	
3.0	
3.5	
4.0	
4.5	
5.0	required pH level
5.5	
6.0	
6.5	
7.0	neutral
7.5	
8.0	To adjust the pH level to the figures indicated, sulphuric acid may be added to the mash until the right level is reached. Take it easy with the acid as it goes a long way. Acid is used when the level is above neutral. If you've added too much acid, or the water you are using is too acid, caustic soda may be used to bring it back to the desired level.
8.5	
9.0	
9.5	
10.0	
10.5	
11.0	
11.5	
12.0	
12.5	
13.0	
13.5	
14.0	very alkaline

Table 3

Specific gravity	Sugar content	
1.000	0%—	
1.0039	1%	
1.0078	2%	
1.0117	3%	not enough sugar
1.0156	4%	
1.0196	5%	
1.0236	6%	
1.0277	07%	
1.0317	8%	
1.0358	9%	
1.0400	10%—	
1.0441	11%	
1.0483	12%	
1.0525	13%	
1.0568	14%	
1.0610	15%	ideal sugar content
1.0653	16%	
1.0697	17%	
1.0741	18%	
1.0785	19%—	
1.0829	20%	
1.1290	30%	too much sugar
1.1785	40%	
1.2371	50%—	

Fermentation can take place in a plastic garbage bin placed inside the sealed drum, or the inside of the drum can be painted with epoxy.

Fermentation will usually take three or four days, and the resulting beer will have an alcohol content of between 10 and 15%, depending on the type of yeast used. Brewer's yeast (not the type used as a nutritional supplement!) will give a higher yield than baker's yeast, and so would seem to be the best buy. Baker's yeast can be obtained from almost any supermarket, but brewer's yeast (also known as distiller's yeast) is somewhat more difficult to find and may have to be bought in bulk from a brewery. This type of yeast has to be stored just above freezing point (i.e. 1°C) to stop it from spoiling.

The quantity of yeast is not critical, but it should be measured with reasonable care. For a batch of 2000 litres of mash, 500 g of yeast should be sufficient (or 1 lb for 400 gallons), or between 0.3% and 1% of the original dry weight of feedstock used.

When using dry yeast it is a good practice to dissolve the yeast in some lukewarm water with a couple of teaspoonfuls of sugar and allow it to stand for about 10 minutes to get the yeast started, but this is not essential. Remember to stir the yeast into the brew before sealing.

As soon as the yeast has stopped working, the brew must be strained to separate the solids from the liquid. Almost anything can be used, from hessian to old clean cloth. The solids represent a high-protein feed that can be fed to livestock on a 50% basis, or dried out and used as a feed supplement. It is most suitable for ruminant animals (cattle, sheep, goats), since the digestive systems of nonruminants tend not to make best use of this valuable byproduct.

The liquid is now ready for distillation to fuel-grade alcohol. This process will be dealt with in Part III.

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Poetry

UPON THE ROAD TO OMEO

*In distant paths my fancies stray
Where sporting sunbeams dance and play
Where song birds chant and soft winds blow
Upon the road to Omeo.*

*The bracken ridge, the sheltered nook
Where romps the boisterous brawling brook
The upland slopes that seem to rise
In virgin glory to the skies.
The beetling crag, the wooded glen
As yet unmarred by hands of men.
The lilting rills that leap and flow
Upon the road to Omeo.*

*The maiden hair, the trailing vine
That high among the timbers twine
The bellbird and the mountain thrush
That sing in yonder flowing brush.
The rough-hewn trail three fathoms wide
Meandering down the mountain side
Where bluebirds nod and wild birds sing
The hymns of praise to God, their king.
The mountains rugged breast above
The native grandeur that I love
The sheer declivities below
Upon the road to Omeo.*

*And now in robes of dazzling white
The Bogong bursts upon my sight
Afar, in shrouds of glistening snow
Thy rugged crest, Kosciusko.
Upward and on by crag and thorn
Onward by virgin grandeur drawn
My heart is longing for to go
Upon the road to Omeo.*

David Taskis

WINTER LEAVES

*Winter leaves you are,
winter leaves.
No pollen nor dust
for us to smell
for the air to tell your tale.
No such smell.
You are just winter leaves,
blowing brown in the breeze you,
seem so pleased.*

*My window sees,
my eyes and you your
wonder magic veins,
in a strange-some shape.
On the ground you lie,
on the grass lawn high.
I see so many of you,
like our memories,
like our sleepy dreams
in life
like you we are,
just winter leaves.*

Allan Kellehear.

THE WILLOW

*In a cowshed paddock back-
dropped by denuded hills,
on the bank of a stream knifing rust
car bodies and motor bike wheels,
the willow, holding her skirts
from a breeze fresh from the freezing works,
in the dusk
weeps, as clouds gather
and one or two lights
flick on in the town.*

Harry Goodwin.

BANKSIA

*You stand with trunk all gnarled and twisted,
Tortured like joints in a rheumatic hand.
Serrated leaves, tough as an old crosscut saw.
Your flowers, nectar laden, open slowly,
Standing erect as fantastic candles
In an exotic candlestick.
How many honeyeaters have supped your wine?
But flowers gently die away
To be replaced by cones, with seeds held close.
They wait, and open not
Until the trial of fire is undertaken.
Then seed germinates anew, to grow again
And finally return to earth
From whence you came.
How old are you?
How much have you seen
Or pondered on what might have been,
Old man Banksia?*

Mary Price.

YEARNING

*I seek not what I find,
yet find not that which I seek,
nor do I know that for which I seek I can find.*
Ines M. Huntley.

SHORT POINTLESS JOURNEYS

*Overbearing conversations among
bloodless antipodean ballerinas
as they dance with their drinks,
rubbing loins with the bar,
lounge lizards lolling in limbo
rutting by remote control
in a separate reality,
revelling in excess, testing sanity,
sweat and smoke, glasses and gluttony,
it's a fashionable psychosis
this murky metamorphosis
from fragile to senile.*

B. Allen.

KIDS' PAGES

Dear Grass Roots,

Although I love holidays I sometimes run out of things to do. Mum said to go and get the back copies of *Grass Roots* and look up the Kids' Pages. I've made lots of things — balloon sculptures, paper-bag puppets, butterfly bookmark, tissue-papered eggs, a woven bookmark and cards and gift paper. I've really had a lovely time and I've been cooking as well. When I get good enough I will try *While the Billy Boils*. Bye for now.

Erica Johnston
ALBANY, WA.

Hi,

What have you been doing these holidays? I've been playing with our chickens. We set the eggs in the incubator and now it is full of chickens. We also have baby Guinea fowl (Keets) and baby turkeys (poults). They are darlings. I have made some playdough and played with it and did a jigsaw puzzle that had 300 pieces. Soon my best friend Giselle who was born one day before me will come to stay for three nights and we will go to Melbourne and see a film with my Mum.

Sunshine Miller
Box 900
SHEPPARTON 3630.



COOK'S CORNER

REFRIGERATOR COOKIES

- ½ cup butter
- ⅔ cup honey
- 1 egg
- 1¼ cup wholemeal flour
- 2 tbs wheatgerm
- ½ tsp cinnamon
- ½ tsp nutmeg

Beat butter and honey together until smooth and creamy. Beat in the egg. Add flour and spices. Stir until smooth. Shape into 2 logs about 20 cm (8 in) long. Refrigerate for at least 1 hour. When ready to bake, slice into rounds about 6 mm (¼ in) thick. Place cookies on ungreased sheet in the oven and bake at 160°C (325°F) for 10-12 minutes.

Janine Amey, Caringbah.

A mother chook and her four young chicks, some of whom like paddling in their feed tray.

THE LOST BAT

by Margaret Hurle, Moree, NSW.

Last night was very windy, so this morning we went out to clear away the rubbish that had blown into the yard. Ben found a bat lying close behind the tyre of the car. He thought it was dead, but when he poked it, the bat bit his finger.

We found a small cardboard box and after carefully pushing the bat into it with a stick, we carried it inside. Mummy said she didn't think it was injured, but was probably feeling tired and battered from being blown about last night when it went out to catch insects. She said it might have been blown a long way and was lost.

It was a boy bat, with big papery ears and tiny eyes. When he squeaked, we could see his sharp teeth. He had short brown fur, and Katie said he looked like a mouse that was the wrong shape. Ben said he was just the right shape for a bat. Mummy said that in some countries he would be called a flying mouse.

We put a stick across the top of the box for him to hang from, but he climbed down with the extra claw that was on the front of each wing, and lay down on the bottom of the box. We put him in the corner of the kitchen where it was dark and quiet. All day he stayed there, still and quiet. Ben thought he might have died, but when he touched him gently he moved and squeaked.

At nightfall he started crawling around and squeaking, so we carried the box out onto the verandah. He climbed up the side of the box and almost fell out onto his nose, but just managed to hang on with his backward-pointing back claws. He balanced unsteadily on the edge of the box for a few seconds while he turned his head this way and that. Then he unfolded his wings and suddenly he was off. Flapping quickly towards the peach trees, then turning sharply towards the dam, he was gone.

It was nice having a bat as our guest for the day.

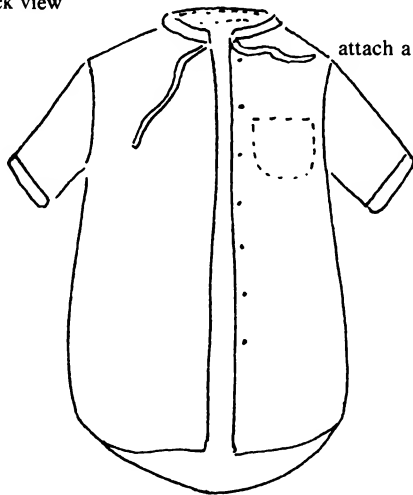


MAKE A PAINT SMOCK

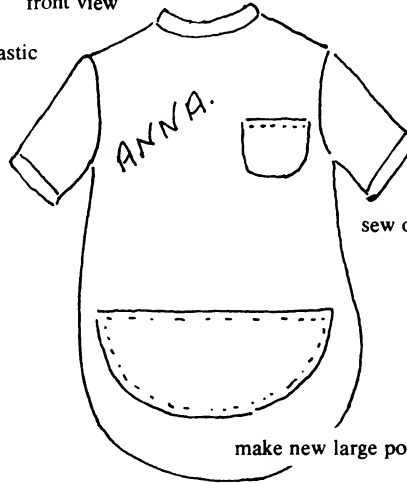
by Susan Sawyer, Morwell, Victoria.

This one is an old favourite children can make themselves.

back view



front view



embroider name or write
in fabric paint

sew on pocket

make new large pocket from check gingham

remove collar and pocket and buttons

Use an old short sleeve cotton shirt, larger size than child (big brother's or dad's). Remove buttons and collar above the stitch line and reverse shirt so the opening is at the back.

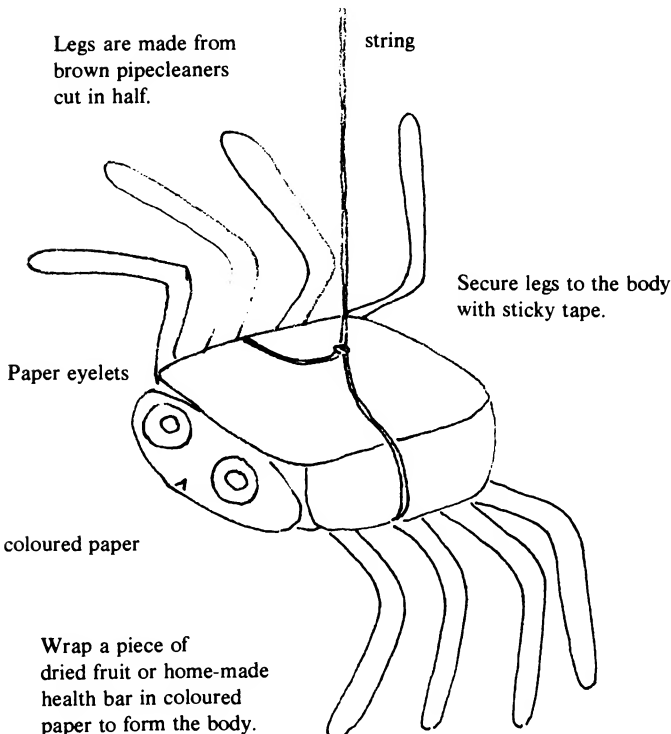
ECHIDNA



A SCARY SPIDER

Legs are made from
brown pipecleaners
cut in half.

string



Paper eyelets

coloured paper

Wrap a piece of
dried fruit or home-made
health bar in coloured
paper to form the body.

*They call me an Echidna,
now that's a funny name.
Some people say I look quite fierce,
yet really, I'm quite tame.*

*My nose is long and called a muzzle
to sniff around for food.*

*My legs are short but very strong
to dig, when I'm in the mood.*

*I have no teeth but on my tongue
are spines to crush my prey.
My favourite meal is big, white ants,
whenever they come my way.*

*But the most important thing of all
are the prickles on my back,
and prickles on my front and sides
to protect me from attack.*

*So if one day you see me
and I waddle close to you,
don't run away or be afraid,
just say 'How do you do?'*

Margo Carlisle, Henley South 5022.

While the Billy Boils.....

Cooking is one of the most creative and satisfying arts. It uses living things and wonderful fruits of the earth in many different ways to give pleasure and satisfaction to our families and friends. By treating foods and our bodies correctly and naturally, we can prolong, enhance, and even create life.

The Green Gourmet — Karen Meyer.

TABOULEH

- 1 cup fine bulgar (cracked wheat)
- 1 dozen shallots, finely chopped
- 2 cups parsley, finely chopped
- ½ cup chopped mint
- 2 firm ripe tomatoes, finely chopped
- ¼ cup olive oil
- ¾ cup lemon juice
- salt and pepper

Soak bulgar in water for 30 mins, drain well and press out excess water. Mix bulgar and shallots, then add parsley, mint, olive oil, lemon juice and tomato. Season to taste. Serve on lettuce leaves.

Mark Abbott, Inverloch.

CREAMY CARROT SALAD

- 1 large carrot, grated
- ½-1 capsicum, chopped
- 1 apple, chopped
- 2 cloves garlic, crushed
- 1 tbsp lecithin granules
- 1 tbsp parsley, finely chopped (or salad burnet, caraway, thyme)
- large handful currants
- handful sunflower seeds, chopped almonds or peanuts
- juice of 1 lemon
- oil
- banana or paw paw (optional).

This salad accompanied with a slice of home-baked whole-meal bread, is a meal on its own. The amount of each ingredient can be varied according to taste.

Maria Inglis, Cobden.

NUT LOAF

- 1 cup chopped celery
- 1 cup chopped onion
- 1 cup grated carrot
- ½ cup ground almonds
- 1 cup chopped walnuts
- 1 cup toasted cashews, chopped
- ½ cup rolled oats
- ¼ cup sunflower seeds
- 450 g (1 lb) cottage cheese
- ½ cup cooked brown rice
- 2 tbsp butter
- 3 eggs
- thyme
- pepper and salt

Lightly braise celery, onion and carrot in butter, then combine with other ingredients. Press into greased loaf tin and bake for at least one hour at 200°C (400°F).

Erin Moore, Palmwoods.

SAVOURY VEGETABLE AND MUESLI PIE

We found this recipe unusual but very enjoyable.

- 6 medium potatoes, sliced
- 2 carrots and parsnips, cut into chunks
- ½ small pumpkin, cubed
- ¼ cauliflower, broken into pieces

Other vegetables may be substituted or added.

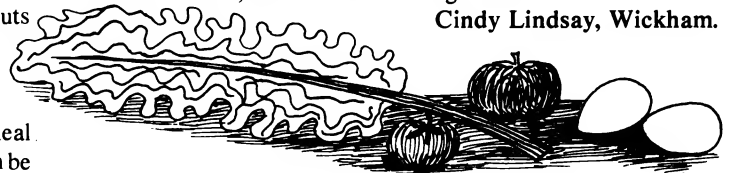
TOPPING

- 500 g (1 lb) muesli (half may be apricot muesli)
- 1 cup crushed wholewheat cornflakes
- 2 eggs beaten
- 125 g (4 oz) tasty cheese e.g. Colby cheese
- 1 tbsp peanut butter
- 2 tbsp oil
- sesame or sunflower seeds optional

Steam or cook all vegetables until just tender. Make the topping by combining the muesli, cornflakes, and two eggs. Then add the cheese, peanut butter, oil and seeds, and mix thoroughly.

Line the bottom of a large greased pie dish with potato slices and broccoli. Cover with some of the topping and press down evenly. Place the other vegetables on top and then the rest of the topping. Mix and sprinkle with sesame seeds if you wish. Cook in a medium-low oven until hot all through and topping is light to medium brown, about ½ hour in a gas oven.

Cindy Lindsay, Wickham.



SILVERBEET SESAME SALAD

- ½ bunch silverbeet
- 1 firm pear sliced
- ½ lettuce
- ¼ cup chopped shallots
- 2 tomatoes, sliced
- 1 stick celery, finely sliced
- 2 hard-boiled eggs, sliced

Sesame Dressing

- 1 tbsp oil
- 1 tbsp tamari
- 1 tbsp lemon juice
- ¼ tsp honey
- ½ tsp grated fresh ginger
- freshly ground black pepper
- 1 tbsp sesame seeds

Tear lettuce and silverbeet into pieces. Place in salad bowl with pear, shallots, tomatoes, and celery and toss lightly. Combine oil, tamari, lemon juice and honey then stir in ginger and pepper. Toast sesame seeds in frying pan until golden brown and add to dressing, then pour over salad. Garnish with sliced egg.

L. Williams, Richmond.

HERBED SPROUT SALAD

- 1 cup bean or alfalfa sprouts
- 1 cup cottage cheese
- 4 large sprigs parsley
- 1 spray chervil
- 2 blades chives
- slices of tomato and cucumber
- 4 lettuce leaves

Mix the sprouts and cottage cheese together well. Break the parsley and chervil into small pieces. Finely chop the chives. Save 1 tbsp parsley and stir the rest of the herbs into the cheese mixture. Into each lettuce leaf spoon some of the cheese mixture and sprinkle with the remainder of the parsley. Serve with slices of tomato and cucumber or other salad vegetables of your choice. Serves 4.

Debbie Blake, Tweed Heads.

TAHINI YOGHURT DRESSING

- 2 tbsp tahini (sesame seed paste)
- juice of 1 lemon
- chives, finely chopped
- yoghurt

Mix the tahini with the lemon juice until it thickens. Add sufficient yoghurt to make the dressing the desired consistency. Stir in half the chives and sprinkle the remainder on top. This is delicious as a dip with slices of cucumber, radish, tomato, mushroom, carrot and celery.

Joanne Perry, Goulburn.

LEBANESE EGG PLANT JAM

- 500 g ripe egg plant
- 2 cups sugar
- 2 cups water
- 6 cloves (tied in cheesecloth)
- 2 tbs lemon juice

Cut stalks from eggplants, peel and cut into 1.5 cm cubes. Cover with water, bring to the boil and cook for 10 minutes. Drain. Dissolve sugar in 2 cups water and add cloves. Bring to boil, add egg plant and remove from heat. Allow to stand 24 hours. Remove egg plant and boil syrup for 20 minutes. Add egg plant to syrup and boil a further 30 minutes. Remove cloves, add lemon juice and pour into hot sterilised jars. Let cool completely, seal. Store in a dark cool place.

Helen Fenech.

ZUCCHINI BREAD

- 60 g (2 oz) compressed yeast
- 2 tbs sugar (honey)
- 6 cups W/M flour
- 4 cups grated raw (peeled) zucchini
- 2 cups warm water
- 2 tsp salt

Cream yeast and sugar – add water and sprinkle ¼ flour on top – stand until frothy. Mix zucchini, flour, yeast and salt. Knead until smooth (more flour may be needed). Stand until doubled in bulk. Knead again and divide into tins; stand 15 minutes. Cook for 30 minutes at 400°F. The bread is cooked when tapped and it sounds hollow.

Kerrie Wollord, Hamilton.

WHOLEMEAL SHORTBREAD

- 1 cup wholemeal flour
- ½ cup brown rice flour
- 250 g (¼ lb) butter
- ½ cup honey
- 1 tbsp boiling water (to liquefy honey)

Mix together flours, rub in butter and add honey and water to make a stiff dough. Roll out 1 cm (¼-½ in) thick, cut into fingers or animal shapes, or line a pie dish and bake at 175°C (350°F) for 15 minutes.

Date spread topping:

- 2 apples, peeled and cored
- 1 cup dried dates (or other dried fruit)
- 1 tsp butter
- ½ cup water

Cook all ingredients on low heat until apple is soft then mash and spread on shortbreads or use as jam.

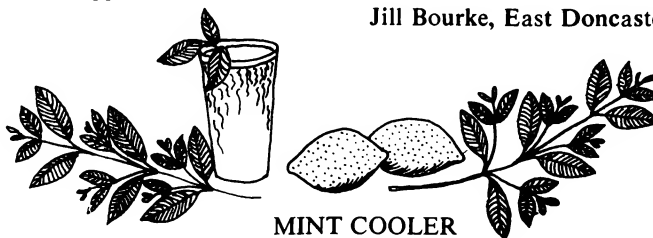
Lynn Parkes, Bucketty.

PUMPKIN COOKIES

- 1¼ cups raw sugar
- ½ cup butter
- 4 well-beaten eggs
- 1½ cups cooked pumpkin
- 1 tsp orange juice
- ½ tsp salt (optional)
- ½ tsp nutmeg
- ½ tsp cinnamon
- 1½ cups wholemeal flour
- 1 cup soybean flour
- 2 tsp baking powder
- 1 cup raisins
- 1 cup chopped nuts

Cream together butter and sugar, add eggs, pumpkin, juice and spices. Stir in the flours and add the baking powder and then the raisins and nuts. Blend well and drop by teaspoonful on well-oiled cookie sheet and bake in moderate oven, 190°C (375°F), for approx. 25 minutes.

Jill Bourke, East Doncaster.



MINT COOLER

- 4 tbsp clear honey
- 12 mint leaves, crushed
- 4 lemons or limes
- 115 g (4 oz) sugar
- 140 ml (5 fl oz) water
- 4 sprigs mint

Boil honey, sugar, crushed mint leaves and water together for 4 minutes. Add strained juice of lemons or limes. One-third fill glasses with this syrup. Fill up with crushed ice and chilled tonic water. Float a slice of lemon or lime and a sprig of mint on top. Mineral water, dry ginger ale, lemonade or soda water may be used instead of tonic water.

Kerryn Lukey, Murray Bridge.

THE 'EXPANSIBLE ELECTRICAL ENERGY' SYSTEM Part II

by George Gardner, Qld.

The Expansible Electrical Energy system (EEE) is designed to reliably meet all of our basic electrical requirements and, at the same time, to readily accommodate inputs from solar panels or a wind generator. We previously talked about building up the engine/generator assembly and will now discuss the switchboard section of the system.

I mentioned in Part I (GR 40) that when you are searching for your used 32 v DC generator you should also be on the lookout for switchboard bits and pieces to save you purchasing new items unnecessarily. Second-hand serviceable items such as meters, knife-switches, terminal blocks, fuse holders and even wire can be substituted for the comparable new items used on our example model.

The switchboard illustrated in this article was designed to use new, economical and readily available parts. This of course does not mean that older, used, and even slightly different items cannot be successfully substituted. We will advise you when this option is possible.

Electrical functions of switchboard components

The BATTERY-SELECT switch (S_1), a two-position switch (fig. 3), is the most complex device on the switchboard and performs a key role. In one switch position batteries B_1 and B_2 (fig. 1) are connected in parallel to supply 12 v DC for household use; at the same batteries B_3 and B_4 are connected in series for charging at approximately 24 v DC. (This charging voltage will vary between 22 and 32 v depending on battery condition.) When this switch is placed in its second position the connections are transposed — batteries B_3 and B_4 are now connected in parallel to supply 12 v DC for household use and at the same time batteries B_1 and B_2 are connected in series for charging. The reasons for this rather complex switching action are threefold.

1. It guarantees uninterrupted power for household use. If proper battery-charging procedures are followed, the set of batteries left in charge mode are always fully charged and ready to be switched for household use when required. Thus at no time is the household without electricity.

2. It is extremely unwise to charge the household batteries while they are in use. This is a critically important feature of the EEE system. Voltage spikes that are produced by rotating generator devices must be isolated from the household electricity supply. These voltage spikes will have an undesirable effect on any items using solid-state electronics such as transistor radios, televisions, stereo systems, inverters and fluorescent lights.

3. It permits the batteries to be used and charged in their most efficient modes. The batteries switched to household use are connected in parallel to produce 12 v DC at high current output and the batteries under charge are in series for 24 v DC low-current charging. Electrically it gives us the best of both worlds.

The battery-select switch (S_1) could be substituted by

four individual single-pole double-throw knife switches with a single insulated handle commonly securing all four switch wipers to provide simultaneous operation. Fig. 1 gives a clear electrical picture of how knife switches would be wired into the switchboard circuit. We did not use knife switches on our example model because of cost and size considerations. The switch we used (S_1) is about a third the cost and a fraction the size of a comparable new knife-switch assembly.

The toggle switch (S_2) and voltmeter (M_1) serve a dual function. When the switch (S_2) lever is placed in the METER position, meter (M_1) indicates the battery voltage supplying the household. With the switch (S_2) lever placed in the METER AND PANEL LAMPS position, not only does the meter (M_1) indicate household-supply voltage as before, but additionally lights the lamps (L_1, L_2, L_3) located within all three panel meters as well as the large lamp (L_4) in the middle of the switchboard. This convenience allows you to read the meters and light the switchboard as well as the generator room for night operation.

All four of these lights are powered by the batteries switched to household use, thus the generator does not have to be in use for their operation. Switch (S_2) also has a centre OFF position when neither the meter nor the panel lights are required. Meter (M_1) indicates when the household batteries are discharged sufficiently to require re-charging.

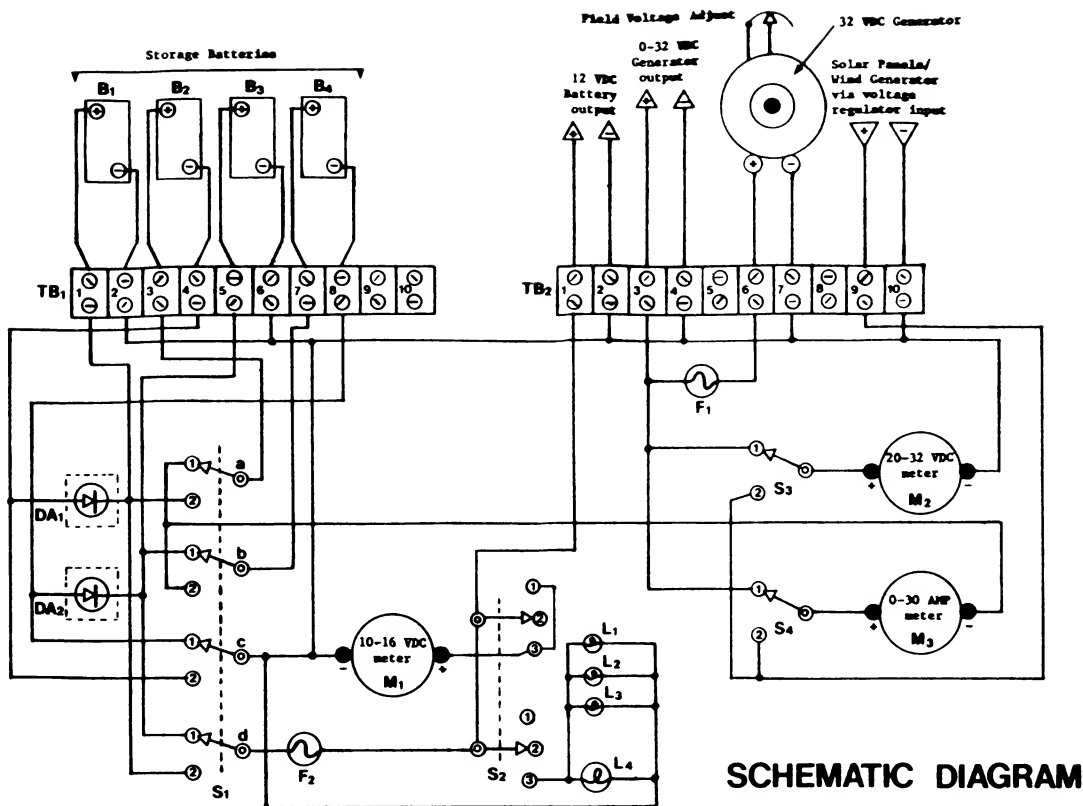
Standard automotive/truck instrument meters were used on our switchboard because they are robust in design, small in size, have built-in lamps and are readily available, however, any comparable working meter scrounged from an old switchboard would do the job.

The OUTPUT VOLTAGE SELECT toggle switch (S_3) in conjunction with voltmeter (M_2) indicates the charging voltage produced by our 32 v DC generator or by solar panels/wind generator, depending on switch lever position.

Meter (M_2) in association with meter (M_3), reading volts and amps respectively, indicate when the batteries under charge are indeed fully charged.

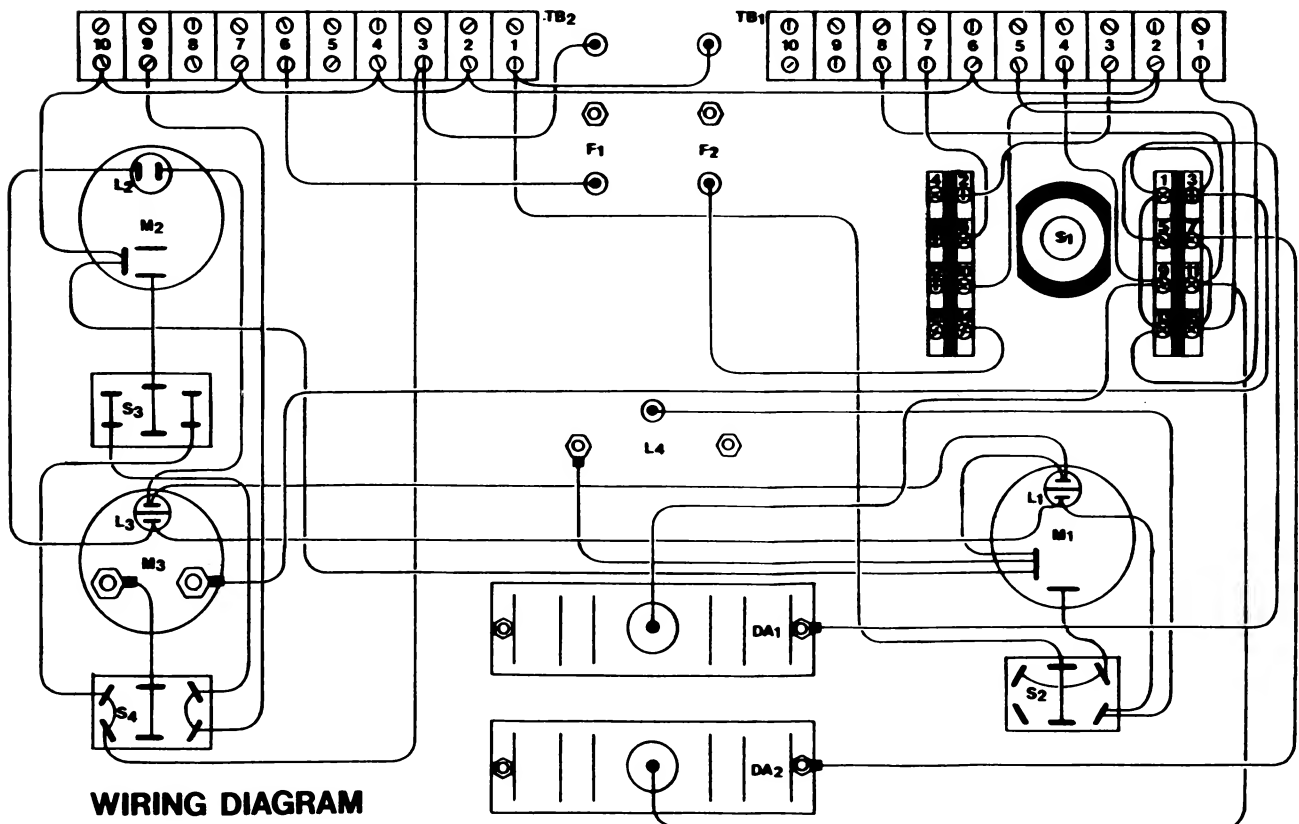
The CHARGING CURRENT SELECT switch (S_4) works in conjunction with meter (M_3). With the toggle switch (S_4) lever in the GENERATOR position meter (M_3) indicates the 32 v DC generator current going into the batteries under charge. With toggle switch (S_4) lever in the WIND/SOLAR position, the 32 v DC generator output is disconnected and the wind generator/solar panel output is charging the batteries with their charging current now indicated on meter (M_3).

The two diode assemblies (DA_1 and DA_2) mounted on the rear of the panel (fig. 2 and 4) permit current to flow in one direction only. The diode assembly is a two-part item comprising of a high-current diode press-fitted into a black multi-finned heat sink. This simple electrical protection ensures that the batteries 'on charge' cannot discharge by feeding current back into a stationary generator or solar panel.



SCHEMATIC DIAGRAM

Fig. 1. Schematic diagram – this is the electrical representation of the switchboard assembly. Included in this diagram are the terminal block (TB₁ and TB₂) connections that are selected to attach external items such as batteries, generator, solar panel/wind generator inputs, etc.



WIRING DIAGRAM

Fig. 2. Wiring diagram – indicates exactly how the rear of the switchboard panel is wired. This is the diagram you would follow during the actual wiring process, marking over each line with a coloured pencil when each wire connection is completed, so that no connections are accidentally omitted.

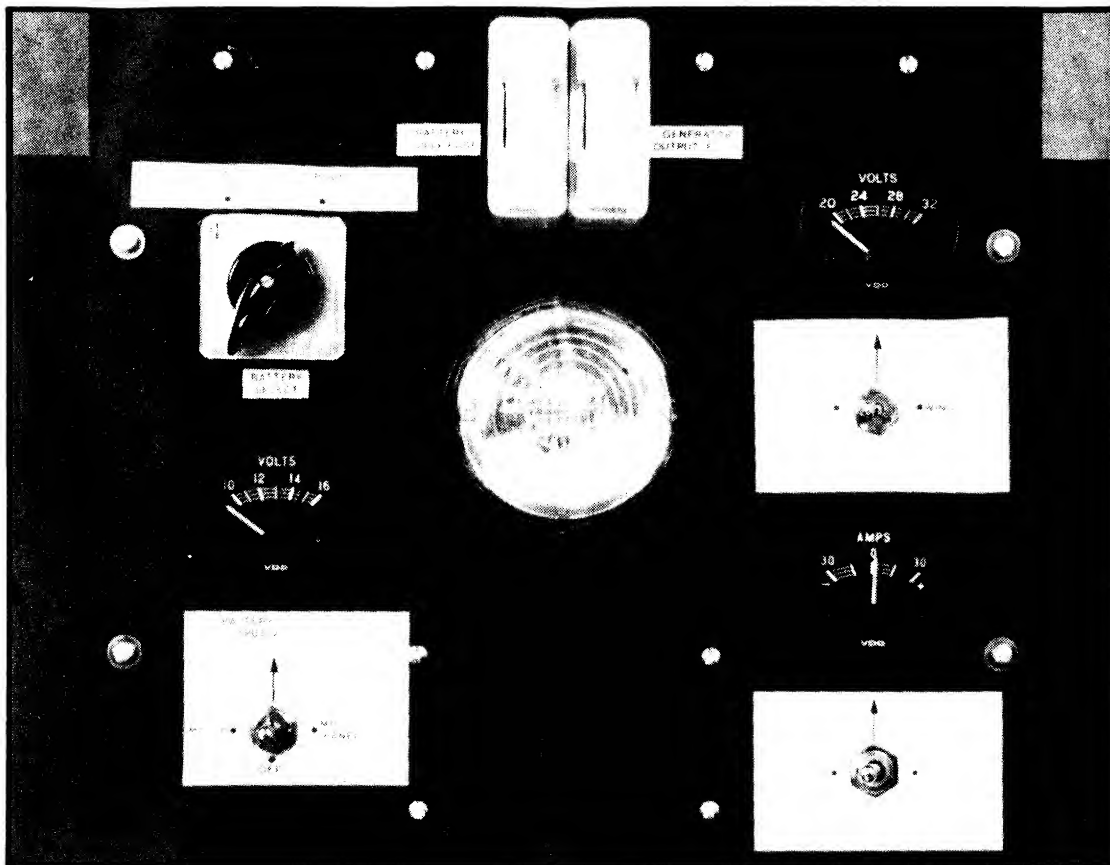
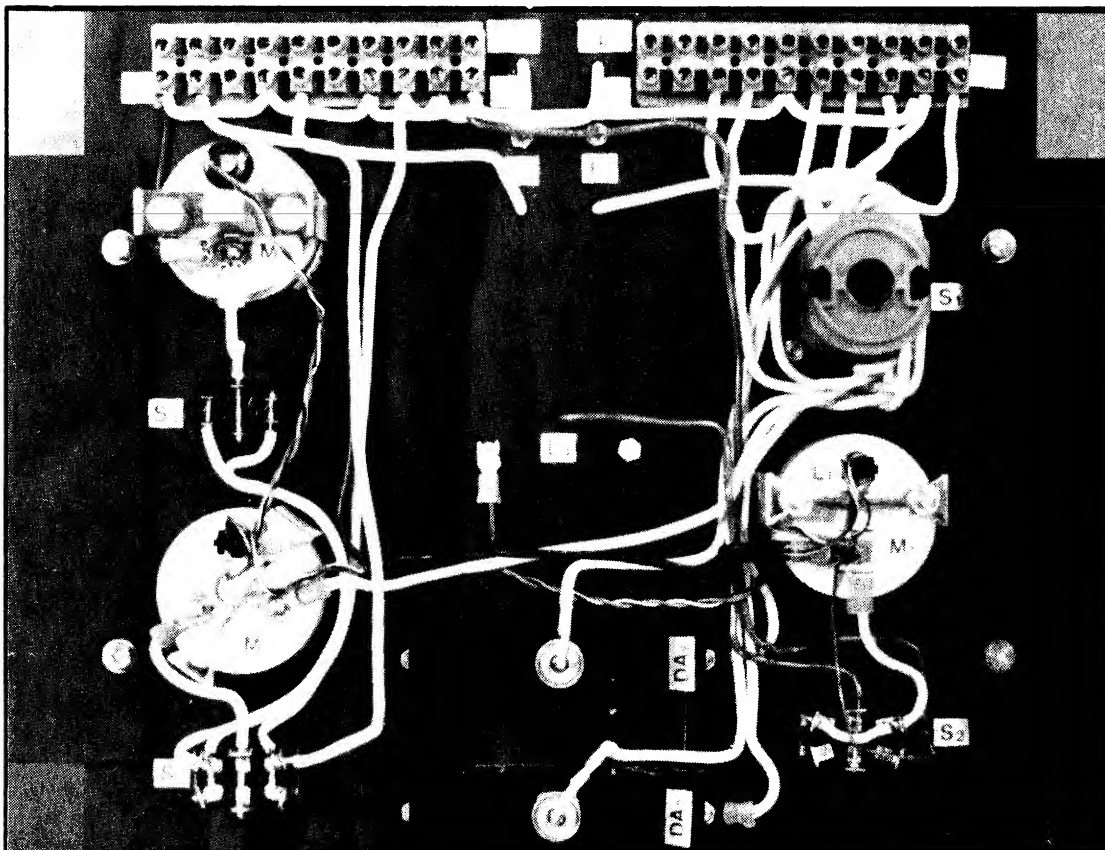


Fig. 3 and 4. Front and rear photographs of our example switchboard will assist you in the placement of hardware items such as meters, switches, terminal blocks, etc., as well as an aid during the wiring process.



The switchboard incorporates two fuse blocks (F_1 and F_2). Fuse (F_1) protects the generator output and fuse (F_2) protects the household supply.

There are two terminal blocks (TB_1 and TB_2) mounted on the rear top edge of the panel (fig. 1, 2 and 4). These two terminal blocks give us a simple method of electrically connecting our switchboard to the outside world, i.e. batteries, household supply, generator output, generator input and solar/wind inputs.

When you obtained your used 32 v DC generator you should have also received the accompanying FIELD VOLTAGE ADJUST control. This variable resistor controls the output voltage of your generator. The resistance/current ratings of this device would vary from generator model to generator model, therefore it is important that it be included with the generator when purchasing. This control should be positioned in close proximity to the switchboard panel since meters must be observed during the generator output voltage adjustment.

The 12 v DC battery output for household use is terminated at terminal block (TB_2) stations 1 and 2.

The 32 v DC high-current output for such items as a washing machine, flood lights, high-current 240 v AC inverter, etc. is connected to terminal block (TB_2) stations 3 and 4.

The four batteries are connected to terminal block (TB_1) stations 1 through 8. It is essential that the battery terminals be connected observing correct polarities as indicated in fig. 1.

These four batteries would be of a lead-acid 'deep-cycle' type which is not your standard automotive battery. A deep-cycle battery has a long life — up to several hundred complete charging/discharging cycles; under these conditions it will normally last 3 to 4 times the life of a standard automotive battery. If these deep-cycle batteries are continually 'topped-up', not frequently over discharged and properly cared for, they will give 8 to 10 years of dependable service.

Select the largest ampere-hour batteries you can afford, so long as a single battery does not require at any time more than 20 amps charging current. The major suppliers of deep-cycle lead-acid batteries would be Dunlop, Exide and Besco. Check the yellow pages of your phone book for local suppliers. Once purchased, the batteries should be installed and serviced according to the manufacturer's recommended procedure.



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LIST OF MATERIALS

Switches		Part Number
S_1	Four-pole double-throw — 20 amp minimum rating	284-001
S_2	Double-pole double-throw — centre off — 10 amps DC minimum rating	284-002
S_3	Double-pole double-throw — 3 amps DC minimum rating	284-003
S_4	Double-pole double-throw — 20 amps DC minimum rating	284-004
Meters		
M_1	10 to 16 v DC (lamp L_1 included)	284-005
M_2	20 to 32 v DC (lamp L_2 included)	284-006
M_3	0 to 30 amps DC (lamp L_3 included)	284-007
Diode assemblies		
DA_1 and DA_2	Diode/heat sink — 25 amps DC minimum rating	284-008
Fuse holders		
F_1 and F_2	Porcelain holder with 20 amp fuse wire	284-009
Terminal blocks		
TB_1 and TB_2	10 station — 20 amps DC minimum rating	284-010
Lamp		
L_4	Automotive back-up type	284-011
Miscellaneous		
	Pre-drilled switchboard panel	284-012
	Switchboard panel stick-on identification labels (complete set)	284-013
	Wire pack — includes all wire necessary to complete panel	284-014
	Hardware pack — includes all hardware necessary to complete panel	284-015

If you have difficulty obtaining parts a complete assembly kit containing all of the above listed items is available from Protronics, PO Box 1058, Toowoomba 4350, for \$248.00 plus \$12.00 for pack, post and insurance. Prices on individual items may be obtained on request — please send self-addressed, pre-stamped envelope.

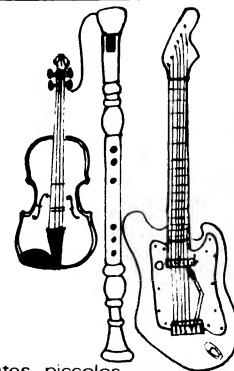
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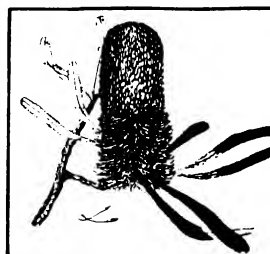
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TRICKLE AND MICRO-JET IRRIGATION FOR THE HOME GARDEN

by George Hall, Avenel, Victoria.

I have been interested in trickle irrigation for about two years but am still a novice in many aspects of its application. However, I have grown a large variety of flowers and vegetables with a great deal of success using drippers and micro jets. The system can either be used on town water or gravity fed from a container (i.e. a 44-gallon drum). Drippers require very little pressure whereas micro jets require a minimum of 15 psi (pounds per square inch) to work, and 34-40 psi if any large quantity of water is being used. Our town pressure is about 28 psi but drops dramatically in summer, which suits my system very well. My garden is on a flat allotment. The problems encountered with gardens in hilly country can be overcome by using pressure-compensating drippers.

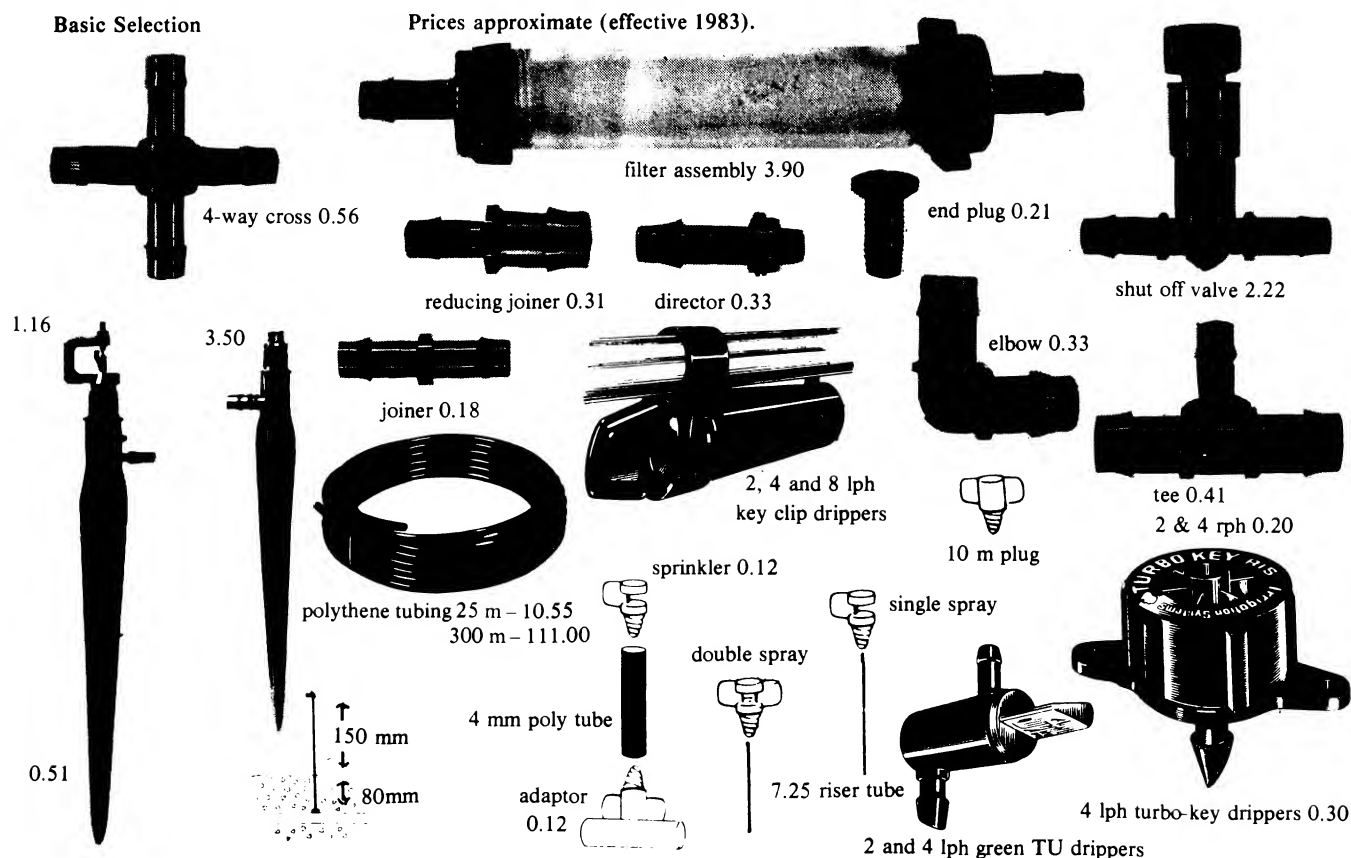
I initially set up a dripper system on my fruit trees, and then used the system in a plantation of 170 native trees to try and cut down on the labour involved in watering them in their early years. In November 82, just prior to the drought, I began to try and incorporate this system into my garden, which was very lucky because next February we were restricted to 60 litres a day with no outside watering. I was bringing in about 20 gallons of water a day and gravity feeding it from a 44-gallon drum. This kept all my vegetables and fruit trees not only alive but flourishing. On my fruit trees I use from one to four 8 LPH (litres per hour) drippers per tree depending on their age and

water requirements. I use 4 LPH drippers on my vegetables and 2 LPH drippers on my native trees.

The main advantage of drippers or micro jets is that you water only a specific plant or area so there is no waste, and once set up they require very little maintenance for trouble-free operation. Our town water is pumped straight from the creek without filtration or chlorination so I put an inexpensive filter at the start of my system, which also works well being gravity fed from a dam.

I first started with one circuit off my main-water line going to a junction box; I could then run any number of circuits using the shut-off valves to control the flow to each line. My vegetable beds are laid out so that I have one main line running down the centre with lateral lines running from this main and drippers attached to these laterals. The laterals are approximately 30 cm (12 in) apart. At the end of the season when that line is finished I remove that lateral and seal it. If for any reason you want to use only two or three of the drippers, these can be moved and then plugged and easily replaced again with the drippers when required.

My first major problem was that after turning the system on I would forget all about turning it off. So I invested in an electronic timer with a solenoid (basically an electric tap) set in the first circuit which also incorporates the filter and can be set from 1-14 hours. It is manually turned on but will



automatically switch off. I have had no problems with it at all and have found it well worth the cost (\$62 and \$28 for the solenoid).

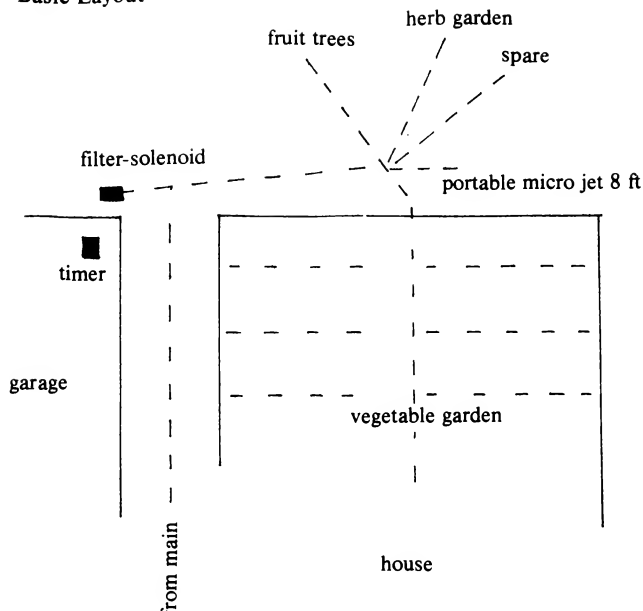
Last year I successfully grew many vegetables and fruits on drippers; cabbage, cauliflower, Brussel sprouts, silver beet, grapes, gooseberries, potatoes (one of which was over two pounds), cucumbers, water melons, blackcurrants, raspberries, rhubarb, pumpkin, asparagus and broad beans. This year I am going to use a portable microjet on my strawberries, onions, beetroot, sweetcorn, carrots, peas and beans. It is mostly a matter of trial and error to find the best method for each type of vegetable.

I also use raw sawdust as a mulch which worked very well last year (remember to replace the nitrogen that the sawdust will take from the soil when breaking down). The micro jets work well provided that they are the only circuit operating at any one time because drippers and micro jets require different pressures.

The products shown are only a very small selection of the variety available. When purchasing any products, avoid those containing brass, as the price will be much higher. There is now available a low-pressure, low-water usage sprinkler that handles 180 LPH, and can be left on for long periods without excess water runoff.

If you decide to set up a system write to me or if you are in the area you are welcome to have a look at my setup but please phone first 057-962-477 before 8 p.m. Avenel Garden Service, 10 Queen Street, Avenel 3664.

Basic Layout



Dripper or micro-jet equipment can be obtained from Aqua-field Pty. Ltd., PO Box 37, 32 Coolstore Drive, Croydon 3136.

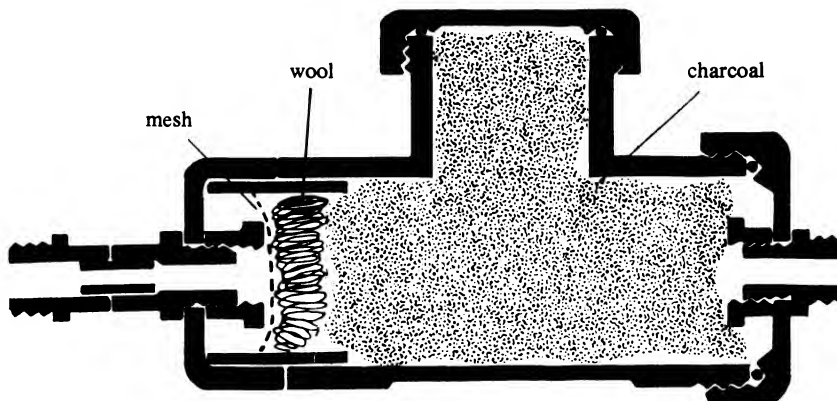
Electronic Timers are available from Tain Electronics, 38 View Street Fairfield 3078, phone 03-496-410.

A Large-Volume Drip Filter

by B. Hayes, Kangaroo Island, SA.

Drip irrigation is used a lot here, where the climate is very dry in summer. Most of the equipment available is either for a low rate of flow as in suburban gardens, or for large-scale use and very expensive. Last year I paid \$150 for a filter which doesn't handle as much as the one illustrated.

This unit will handle up to 12 m (40 ft) head pressure of water, but any more than this might exert more pressure that the PVC is designed for. I found that charcoal, which passes through a 0.5 cm ($\frac{3}{16}$ in) sieve, is the best filter material and, unless the incoming water is loaded with sediment, little recharging is necessary. Our water contains algae which clogs standard filters rapidly. To re-charge I remove the charcoal and place it in a bucket of water, slosh it about, let it settle and then pour off the impurities. The charcoal then goes back in the filter. Feeding 1800 drippers, this filter required recharging only once in four months.



This large volume filter for a drip irrigation system is made up from PVC plumbing fittings — the approximate cost is \$20.

TETHERING AND OTHER HINTS

by Ken Lee, Minmi, NSW.

One of the hassles when tethering animals is the need to carry a heavy hammer each time you have to move the peg to which the animal is tethered. If you have access to welding equipment you can avoid this irksome chore by making a peg with a built-in 'hammer', which ensures speedy hammering in and pulling out. The sketch should clearly explain the method of construction.

The dimensions are critical.

A — should be long enough (30 cm or more) to allow a vigorous, repeated up and down stroke.

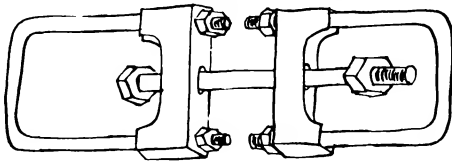
B — should be wide enough to give a good overlap over the hole C.

C — should be wide enough to allow free passage along the shaft of the peg.

Two large washers welded onto the shaft of the peg will allow free turning of the chain, without it sliding up and down. To hammer the peg in, grasp the handles and use a vigorous, repeated 'downwards' pull.

Most of my tethering experience (and trouble) comes from a wily old pony called 'Chester' (after the character in the old TV series 'Gunsmoke' — because of his limp). Not long ago he managed to break the Mark 1 chain swivel (described in GR 38, p. 57) so the research and development section went back to the drawing board to produce the new improved Mark 2 chain swivel, which is quick, cheap, simple, and hopefully more effective than the Mark 1. It is undergoing field trials at the moment! The straight bolt should be long enough to allow a swivel action, i.e. the nuts on the cross pieces of the two shackles should not foul each other. Also, the nut on the straight bolt should be securely fastened — if in doubt use two nuts. Of course, either chain or rope can be used with this — simply attach to the U-shackles.

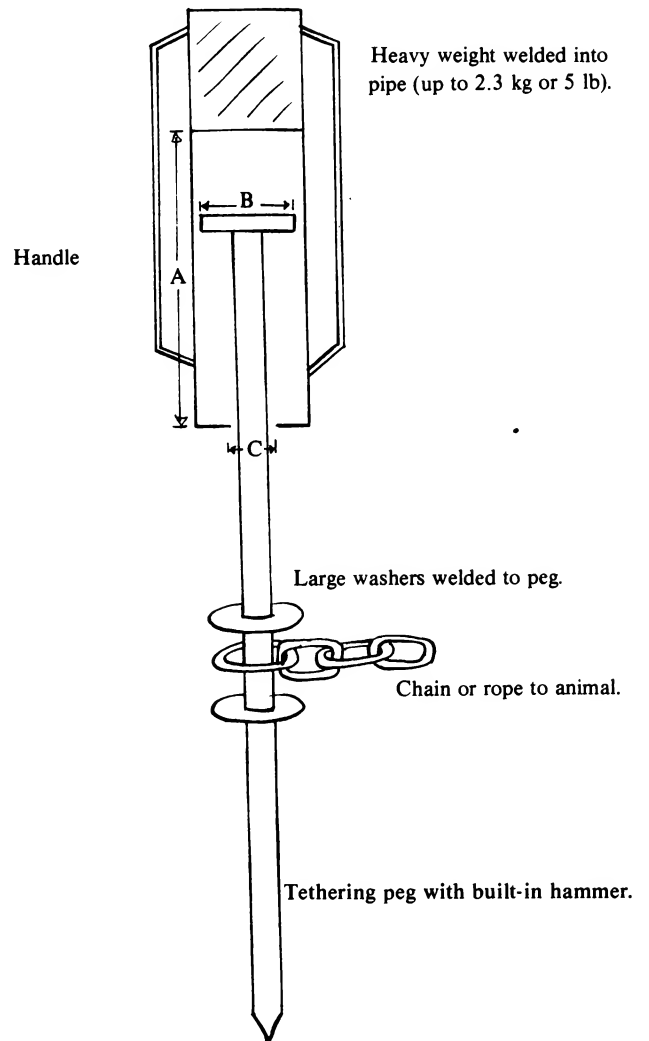
The Mark 2 chain swivel — foolproof I hope!



Useful snippets of information

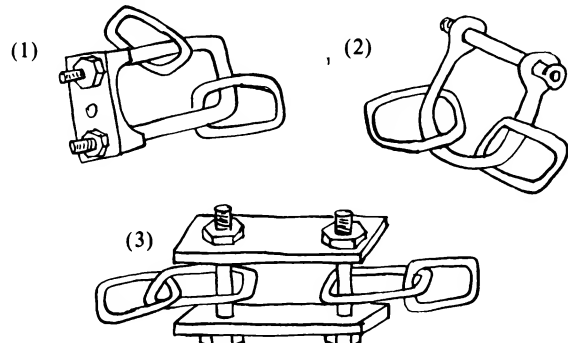
Large, heavy saucepans used for making jam, heating milk for yoghurt, simmering stock etc., are ruinously expensive. However, if you have no objection to cooking in aluminium containers, your friendly local opportunity shop should provide some old pressure cookers. Usually it is the rubber gasket in the lid that is worn out and this can be discarded, providing a cheap and useful heavy saucepan which can be used either with or without the lid.

Self-reliant car travellers always take the precaution of carrying top and bottom radiator hoses amongst their spare parts. If your vehicle is fitted with the luxury of a heater, be sure to carry a spare heater hose too; a split heater hose can drain your cooling system as easily as a damaged radiator hose.



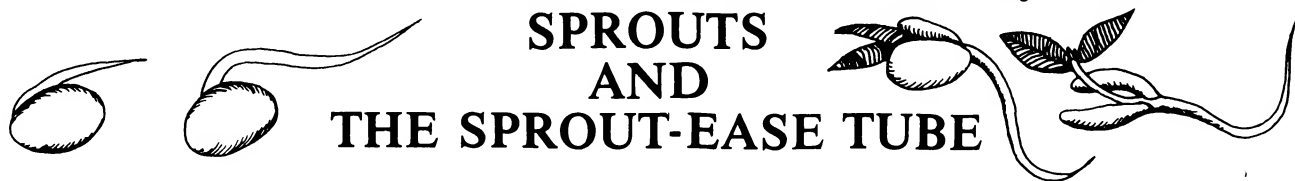
If you are unfortunate enough to break a link in a chain, here are three quick and effective ways to repair it.

1. Use a U-shackle of the type found on a car-exhaust system.
2. Use a D-shackle of the type used on trailer safety chains.
3. Use two flat strips of steel, each with two holes drilled in, and two bolts. For this method make sure that the chain links are free to move between the steel strips.



GOING SOLAR GENERAL STORE

For the past few years the General Store column has provided a service to readers. To expedite despatch of goods, cheques should be made payable to, and sent to, Going Solar in Melbourne. Orders should be clearly marked: Going Solar General Store.



SPROUTS AND THE SPROUT-EASE TUBE

It is almost beyond comprehension that for thousands of years the value of sprouts has been known to the East, but it is only recently that sprouts are starting to become a popular part of the Australian diet. Of course, most Australian meals still consist of highly refined and chemicalised products (I am reluctant to call this food), yet the cynical conceptions that grains are useful only as bird seed, and that a meal without meat is inedible, are beginning to fade, I hope.

In some respects, sprouts are nature's fast foods. They are cheap, healthy and tasty. They may be eaten raw or cooked. You need simple equipment and water, and the resulting sprouts are not only very nutritious but add a variety of textures and flavours to your diet. Seeds from most common vegetables can be sprouted for human consumption, with the exception of potato and tomato sprouts which are poisonous and must not be eaten. Be aware, however, that most commercially available vegetable seeds are chemically treated and should not be used. Either collect your own seed, or buy edible seed.

Sprouts normally like a dark place to grow vigorously, though some sprouts need a few hours of indirect sunlight to help develop chlorophyll. There should be plenty of air, so don't try to use too many seeds in the same container at the one time.

Sprouting is easy – as are most things once you know how – and the right tools make the job easier. We have available the Sprout-Ease seed-sprouting tube which is a convenient way to sprout. It is light, unbreakable and made from quality materials. It can be used for picnics, camping, boating, as well as at home, for a supply of crunchy fresh vegetables. The open-end design means that you can push the matured sprouts out, resulting in a 'sprout loaf'.

The Tube is a clear cylinder with a capacity of one litre. Its big advantage is that it has four removable lids, two being used at any one time. The yellow lid is a fine screen and is used to rinse and drain fine seeds such as alfalfa. The green lid is a medium screen and is used to rinse and drain larger seeds such as mung beans and to rinse hulls from the smaller seeds. The orange lid is a coarse screen for large seeds and to rinse the hulls away from mung beans and sprouts of similar size. The brown lid is solid and is used as an end cap.

There are a few simple steps to follow. Place the brown solid cap on one end of the tube. Pour a measured amount of seeds into the cylinder and use one of the other lids on the other end, say the yellow fine screen for alfalfa. Fill the tube with water and leave overnight. The following morning drain the water through the screen, with the yellow fine screen facing down, preventing germinated seeds from rinsing away. Replace the brown solid cap with the green medium screen, rinse the seeds under a running tap for a few seconds. Prop the tube on an angle for ventilation during sprouting. As sprouts grow and throw off seed hulls, exchange the fine yellow screen for the brown lid, fill the

tube with water and the hulls will be flushed through the top. (The hulls are not harmful, but most people discard them to minimise mould problems.) Exchange your brown lid and yellow fine screen again and rinse the seeds morning and night till harvest time.

A few moments morning and night for rinsing and draining the sprouting seeds is all that is required to provide fresh food throughout the year, though with the increase in salad eating in summer, sprouts tend to be more popular at this time.

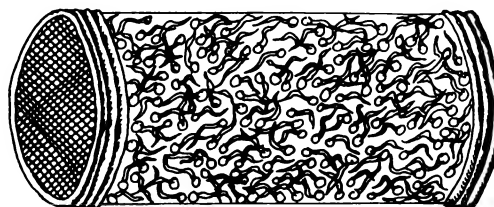
We offer a number of suitable seeds for sale:

Alfalfa — one of the smallest seeds and easiest to sprout but superior to most others in nutritional value. Alfalfa sprouts may be used after a few days but it is better to wait until the leaves have started to develop and the chlorophyll has built up. Growing time: 3 days for 1-2 cm; 6-7 days for 4-5 cm. Vitamin content: vitamin D, E, K and C, iron, phosphorus.

Mung Beans — one of the most commonly known sprouts. Delicious raw in salads or used in many recipes for cooking. Growing time: 2-5 days. Ideal length: 2-4 cm. Vitamin content: vitamins A, C, E, choline. Mung beans contain 20% protein. These beans are suitable for beginners.

Red Clover — a popular seed which should be grown and used in the same way as alfalfa.

Sprout Salad Mix — an interesting selection to sprout including alfalfa, azuki, fenugreek, lentil, mung, and others. This is an excellent way to try a combination of seeds, but remember some may not sprout as quickly as others.



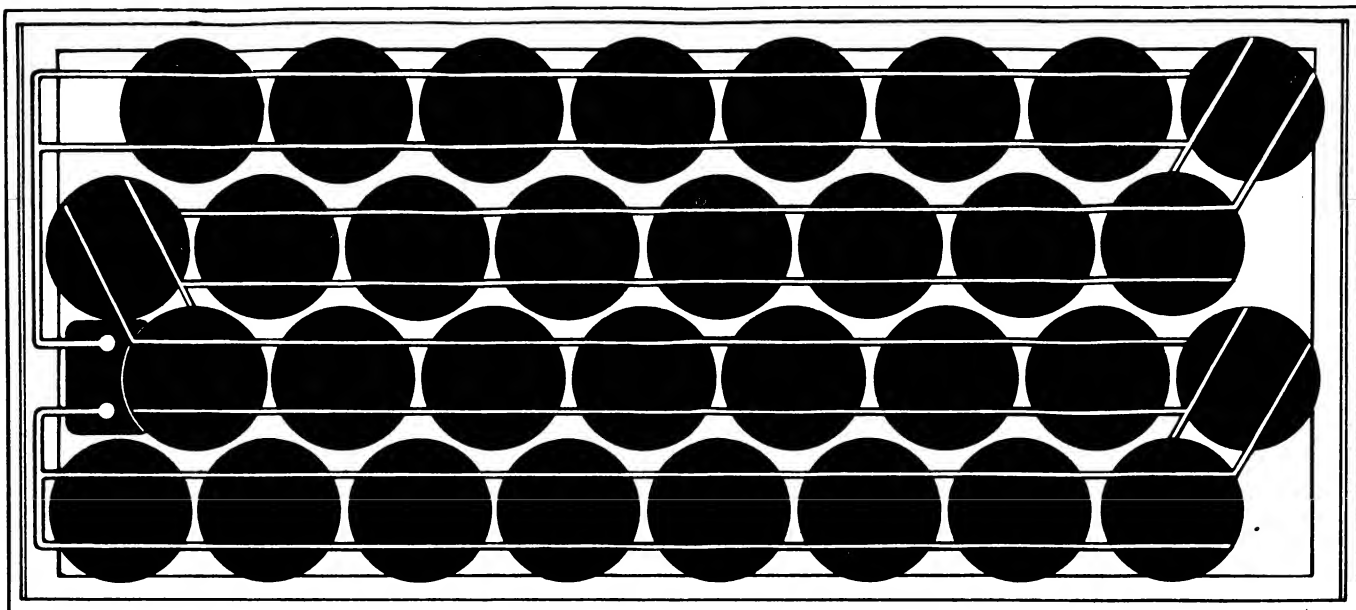
Ordering Information

Sprout-Ease Tube Sprouting Kit 300 g \$12.95
 Alfalfa Seeds 200 g \$1.95
 Mung Beans 500 g \$1.25
 Red Clover Seeds 200 g \$1.95
 Sprout Salad Mix 250 g 95¢

Postage & Packing

	Vic/Tas	NSW/SA	QLD	NT/WA
1- 400g	\$1.90	\$1.90	\$1.90	\$1.90
404-1750g	\$2.90	\$4.50	\$4.90	\$5.90
1751-4500g	\$3.50	\$5.50	\$6.50	\$8.50
4501-9500g	\$3.90	\$7.50	\$8.90	\$12.50

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Down home on the farm...

by Meg Miller



Holiday time — that long-awaited week between Xmas and New Year when we have the place entirely to ourselves and can do, or not do, exactly what we like — and I had been mooning around wondering how I would start this column. There were a few ideas floating through my mind and I chewed them over at least once daily whilst I worked away at my chores. But, as New Year loomed, I was still no closer; I would really have to get down to it soon, I decided. The deadline wasn't imminent, it was just that our few days of solitude were quickly running out and in no time I would be back to the 9-5 routine and the constraints it placed on my imagination.

Eating my way through lunch I pondered on whether or not I would make a start that afternoon when from the bee shed came a shattering BOOM followed by a mass of flying objects. Then there was silence.

'Are you alright darl?' I shouted through the kitchen window.

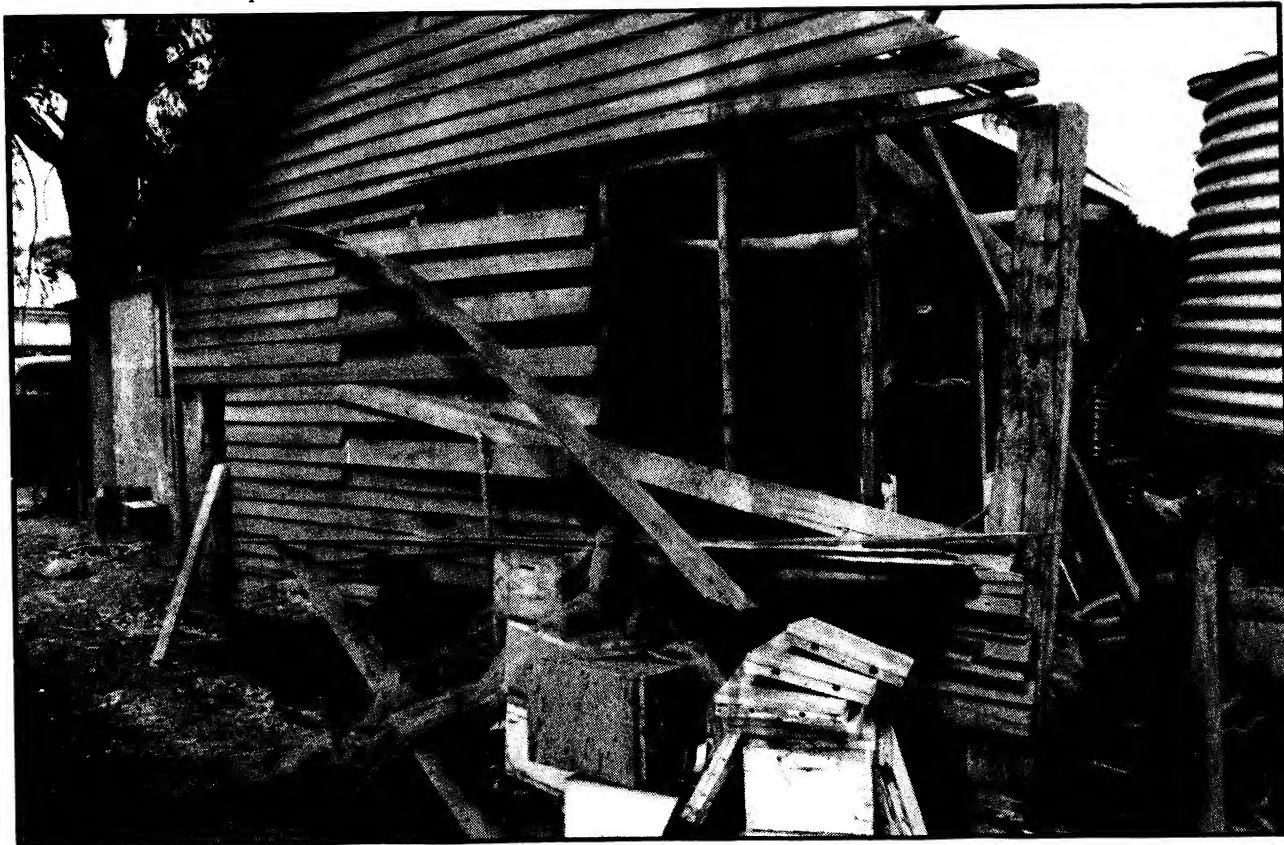
'Yes.'

'What happened?'

'I blew the bee shed up!'

Talk about being galvanised into action, I was over there in a flash, my heart in my mouth whilst the brave survivor made his way out from amongst twisted roofing iron, splintered palings, and a collapsed ceiling with its accompanying load of, what cannot be more delicately put than, ratshit. Apparently the gauge in the boiler, used to warm up the equipment (so the honey will run easily) wasn't working, but because David was already set up to extract he decided he would go ahead anyway. Fortunately he was a few feet away with his back turned when the boiler exploded; had he been closer it may have been a very sad tale. As it was his glasses were blown off and have yet to make an appearance! Whilst we were dazedly standing there, waving our hands around, a truck quickly pulled up at the gate and either reassured that we were still alive or (and I rather think this may be closer to the truth) fearing we were in the midst of a terrible domestic, hurriedly took off before its occupants could be drawn in to take sides.

But it's amazing the difference a cup of tea makes to such a disaster and we spent several hours sitting around counting our blessings. Afterwards David decided the explosion was in



The corner of David's honey extraction shed where the force of the explosion occurred. Alongside the tree in the background is the new incubation shed, which miraculously escaped damage.

fact a heavily disguised 'message' to give up the bees. It has always been an uphill battle for him to find the time to put into them, and they've tended to be pushed aside as soon as a livestock or publishing crisis appeared. Of course we won't go out of them entirely, we'll keep a dozen 10-frame hives for our own needs and use a simple electric uncapping knife and a 2-frame hand extractor. (Prior to this we were using an electric uncapping machine and a 48-frame radial extractor. From there the honey was pumped up into a settling tank and then poured into drums or tins when the pieces of wax had floated to the surface.)

It will seem strange and a little sad not to have hordes of bees hanging around, and supers piled high reminding us of the hours of work ahead. We've always kept a few hives and David himself started off with them whilst living in the suburbs where he kept a box or two in numerous backyards. They're an integral part of his nature by now and the wee handful he'll keep will not only nourish this but also keep him in touch with one of life's most finely tuned cycles.

The yard is still littered with the remains of the explosion — palings and roofing iron were blown over 50 metres away — and I've noticed little reconstruction work underway as yet. The shed wasn't completely demolished, but being an old shed there will be many hours of careful patching up ahead. Of course now the bee equipment is to be sold I'm angling for the space to house chickens and store poultry paraphernalia.

For a while I'd wondered why Father Xmas had bought me another hammer, a selection of bits for the drill and — wait for it — a set of weights. I can see now that he had anticipated some heavy work ahead for me and felt that a little weight training wouldn't go amiss. Funnily enough though, it's not my shoulders that worry me but the toe I stubb every night when I stagger down the passage in the dark!

So what is David going to do with his extra time? Help me with the poultry, a job that is expanding constantly as more chicks are born, plus develop a childhood hobby he has just resumed an interest in — keeping pigeons. Sunshine and he have somehow managed to wrest a couple of chook houses from me until they have time to put up a super-duper pigeon loft. She has always wanted a pigeon so the two have fanned a mutual interest, which they started developing before Xmas, with the purchase of some birds and a dismantled loft. Putting it up is the number one priority this weekend and I'm sure it will be an exciting adventure for both.

The incubator is still purring along, a trusty reliable machine, plugged into a power board at the back of the extraction shed — it never missed a beat during David's fracas with the boiler. A little reading has helped us understand it more fully and we are slowly pinpointing the variables that can make or break a hatching. There are still too many infertile eggs going through, and still a number whose embryos don't mature beyond the first week; but given time I'm sure we'll solve these problems.

The vitamin A and D-enriched mash we're feeding has helped the birds' fertility, and to improve our chances further I've banished Ollie, the Indian game rooster, to a yard in the orchard with half a dozen hand-picked hens. With his short legs it was a battle just to walk around the outside yard each day, let alone round up, and do his duty with over a dozen

hens. This way he has a more reasonable number and we'll know exactly which eggs to set. Ronald, the brown leghorn (pictured in GR 39) has taken over the farmyard now and with his long legs and rampant energy some of the old girls are in for a shock.

When the chicks first hatch they spend a day in the tray at the bottom of the incubator, then they go into a large cardboard box with a special light for heat. After a week, when they've become bold and cheeky, they move into a larger setup, a circular metal surround with the light for heat again and a deep layer of rice hulls for scratching. They may graduate from this into the larger surround and be amalgamated with the older chicks, or they may remain for the next month in their surround scratching, eating and chasing any insects that dare be attracted to the light. Then they go outside into a spacious A-frame, where they become acclimatised to the cooler nights and can watch the other birds moving about. Finally they're settled into the chicken house where there are others a little older, and plenty of protected space under the trees to roam. We've brought out close on one hundred chicks so far, and managed to raise all but three or four. This coddling pays dividends as they are all confident and healthy when they're finally sold or put out to free range.

Knowing all the purebred eggs were going to be kept for incubating, we purchased a handful of hens from the local battery to provide us with what we needed. When they arrived they were half naked and the most tragic sight imaginable. Now, some months later, they have feathered up a little but appear to be suffering considerable mineral deficiencies because many of their feathers are so brittle they just fray and break off. Several have responded to a zinc supplement in their feed but there are still a couple of bare-looking birds I despair of ever rehabilitating. All the poultry are given seaweed powder, which is excellent for refeathering after moulting, or just for maintaining glossy feathers, but these poor dears have me beat. Despite their appearance they lay well, but oh, do they talk — if my garrulous lot are any



Several of the rehabilitated battery hens. Despite their bizarre appearance they lay well and are overjoyed with their free-ranging lifestyle.

indication, a shed filled with hundreds of them must be enough to send a person crazy.

When I went into the grain shed to feed them the other night I whipped the lid off the wheat bin (a 44-gallon drum), bent over and, to my surprise, found a frightened little possum cowering amongst the grain. No doubt she had been nosing around when the lid turned inwards and trapped her there. Judging by the droppings that had been left she had stocked up on as much food as possible! We rocked the bin and she bounded out and up the nearest pole, displaying a little pouch with a very young baby inside. We were quite delighted to share a little food with her but, I might add, I approach the feed bins with a little more caution now.

The turkeys have had to play second fiddle this year with all the chicks around, though there is a nice crop of young ones coming along. They have their own paddocks and shed and live with my flock of silver-coloured turkeys, Rosie, Esmeralda and Edwin. My dear pet, Esmeralda, is most intolerant of them and has retired to her nest in disgust, hopefully to raise some of her own. The other two enjoy their ready-made family and it is quite a sight to see the majestic Edwin surrounded by a dozen poults. He has to be kept separate from the bronze turkeys so they don't interbreed, and also because he and the bronze tom have declared war. Occasionally the toms do get together but then brooms and buckets of water become necessary until finally one of them is physically removed from the battlefield.

Of course I've had help with all of this and it being holidays, a little more than usual. I think these have been our best holidays ever. Sunshine is old enough to entertain herself and by spending time helping her plan out the projects she wants to do, we've had a happy contented little person who hasn't used the dreaded expression 'I'm bored' yet. Once or twice a week she makes biscuits or no-cook coconut and honey balls for herself, she has her bike and skipping rope for the cooler part of the day and, as an extra bonus, there has been a learn-to-swim programme on locally which she has attended. This has provided an ideal structure for the day, allowing enough time in the morning for house and poultry chores and then, after an early lunch, a special project, which could be — making and using playdough, a jigsaw, sewing, fingerpainting or model making. This is followed by reading (last week we visited the book exchange), a game or two with the dolls, and then it's water and feed time outside again.

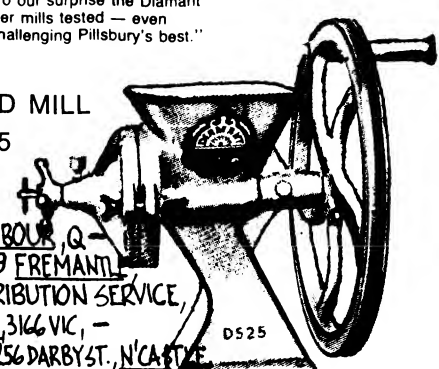
She's turned into a real little treasure, caring and nurturing any slow chicks, and has even managed to tame several guinea keets. She has two pairs of quail to look after and, of course, the pigeons and chicks. Next week, as a special treat, we will go to Melbourne for a day or so with one of her friends, to visit the beach, the botanical gardens, and other inner-city delights.

For years you nag them and remind them of what's right and wrong and what they should be doing, and you wonder if you're really getting anywhere. Then suddenly it all comes together and life's a joy for every one. The calm before the storm someone once suggested. But we're not looking at it from that point of view, rather we're all revelling in, what will probably be, one of the last uncomplicated periods of childhood bliss.

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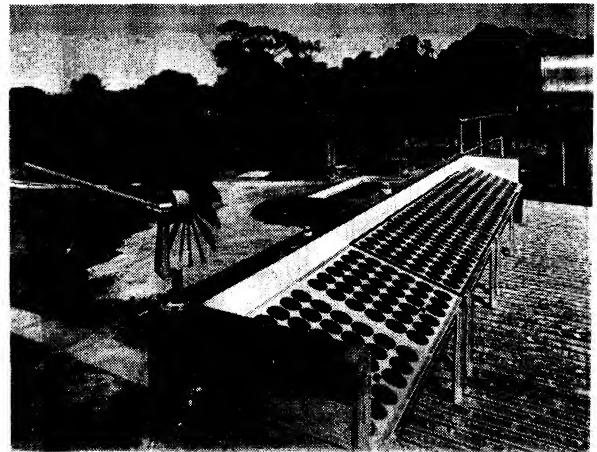
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WIMMERA, VICTORIA – two timber cottages each with five rooms; SEC, town and tank water; quarter acre each, garages, chicken shed and run. One house airconditioned. Both have hot water. Walk to primary school and senior schools bus. Plum, peach, apple, apricot, orange and pear trees. Perfect climate for vegie growing; great place for goats. Only \$16,250 and \$15,250 or \$30,000 for both. Separate titles. Phone A. H. 03-557-2266 or 053-972-205.

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TASMANIA – 16 acres bush and pasture, northerly aspect, sheltered position, fully fenced, good soils, small creek, power and phone nearby. Good access, views over Derwent Valley; 50 min drive Hobart; 15 min New Norfolk. No problems with building permits and alternative building – friendly neighbours. Price \$10,500. Ph: 03-725-9636.

KEMPSEY 240 ACRES of beautiful bush, 26 km from town. Heavily timbered; approx. 20 acres cleared; pockets of rainforest-type vegetation; small creek; good home sites; good rainfall. Lovely views, peaceful, secluded. Price \$48,000 ONO. Further details phone Harald & Deborah on 02-810-6790.

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NORTH NSW COAST – Taylors Arm. Beautiful semi-tropical 100 acres; livable old house on hill, mountains at back, valley view at front. Power, underground water tank, permanent spring water. Land adjoins million gallon dam. Livable small shack on edge of dam. Mostly cleared sloping land, river flats. Want quick sale due to commitments elsewhere. Phone Jill on 02-632-7415.

SUNSHINE COAST QLD – 3 B/R cypress-pine ranch-style home, W/W carpets, OFF, wide verandahs, on 12 frost-free acres. Fenced into 5 paddocks with 3 dams. Chooks, ducks, house cow, pig sty, vegie garden; 7500 gal tank water; above-ground pool. Panoramic views; 12 min surf beach; school bus at gate; 20 min Nambour. Suitable for growing bananas, paw paws. Price \$94,000. Ph: 071-465-327.

KEMPSEY, NORTH COAST NSW, 10 min town, half hour beaches; 40 acres with creek front, fenced flats, half good timber, half improved pasture; adjoins state forest; private, excellent views. Colonial cottage, verandahs, sandstock fireplaces, HWS, wired, power close; big barn, 2 stables, 4 yards, 4 paddocks, numerous outbuildings. All post and rail internal fencing and yards. Established orchard, garden, tree avenues; 4 dams, creek, 2 U/G systems to gardens and house. All handmade within last 10 years. Suit horse stud, market garden, flower production, tourist/historic attraction, trail riding. Price \$120,000. Contact PO Box 282, KEMPSEY 2440. Ph: 065-654-485.

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SITUATED IN VILLAGE of Dundurrabin, 18 miles from Dorrigo, northern NSW, 2 B/R timber cottage on large acre (1420 m²). Town water, power, bus service. Ample room for garden and animals. Alternative community with lots of kids. Freehold (Torrens title). Price \$17,750. Contact Simone Lindhout, 38 Burrens Street, ERSKINEVILLE 2043. Ph: 02-517-2163.

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MOLESWORTH, TASMANIA: partially renovated cottage on 40 acres. Cottage comprises split-level, open plan lounge/living/dining area. Open fireplace; 2 B/R, bathroom. All electric, phone connected. Two acre paddock fenced with dam. Established garden and vegetable patch; large 2-storey garage/workshop. Remainder natural bush. Property enjoys secluded bush setting overlooking steep gorge with impressive views of Mt Faulkner and surrounding hills; 30 min to Hobart, 10 min to New Norfolk. School nearby. Price \$32,000 ONO. Ph: 002-611-722.

ATTRACTIVE 37-ACRE BUSH RETREAT. Easy access Princes Highway; 5 acres grassed; one mile frontage Bemm River; rich soil areas. Price \$20,000, terms available. Permit obtainable SEC on hand. Write Webb, RSD, CLUB TERRACE 3889. Ph: 051-583-240.

IN TOWNSHIP OF KOORAWATHA, S-E of Cowra, NSW, 3 acres of land within town boundary; electricity, water, 5 minutes to PO, pub, shop. Good size block for country/town living. Reasonably priced at \$7750 ONO. Contact David & Genese Norbury, 95 West Barrack Street, DELORAINE 7304. Phone 003-622-302.

SHARE IN SCENIC GREEN property Bellingen area, good soil, creek frontage: 1 B/R cottage, possibility inexpensive extension; brick fireplace, stove, HWS, phone. General-purpose shed, vegie patch, 50 fruit trees, 100 Kiwi vines for cash crop; irrigation. Going concern, suit self-sufficient couple. Price \$54,000; owner can finance approved buyers. Ph: 066-551-681 (6-7 pm).

BUNYA MOUNTAINS: 17½ acres; excellent cleared home site (1½ acres) with high spot for tank; good garden area potential (gentle slope, rich soil); remainder rainforest bordering state forest, bordering national park. Abundant bird and wildlife. End of cul-de-sac access, secluded and commands extensive views of valley and mountains. Alternative local community evolving. Sympathetic council. Price \$30,000. Phone Ramon on 071-637-295 BH.

ARABLE LAND N-E VICTORIA, Kiewa Valley/Bright area. We are a group of 4 wishing to establish a permaculture system. Main requirement is permanent water. Dwelling preferred but not essential. Proximity to natural bush would be advantage. Contact Adrian & Kristin, PO Box 429, MYRTLEFORD 3737. Ph: 057-522-160.

QUORN (FLINDERS RANGES) - 10 acres with 4 B/R transportable gum-lined house; 2 x 5000 gal rainwater tanks, functioning well, potbelly stove, ETSA power, 60 ft x 24 ft steel garage. Some garden, trees, poultry yards, creek. Town one mile away, area school. Price \$70,000. Write Box 79, QUORN 5433. Ph: 086-4871 (M) and ask for 354 AH.

MOST NORTHERLY TABLELAND town (Julatten). Lush countryside; elevation 1600 ft; though tropical we have cool breezes and beautiful nights; 17 km downhill to Mossman, 22 to Port Douglas. There are 6 blocks left on new bitumen road. School (small) 2 km, great fruit and vegie growing, good rainfall, abundant underground water. High hills, glorious views, no flooding. Blocks 4-12. 762 acres - \$20,000-\$40,000; 15% off to readers. V. Stevens, 5 Stevens Road, JULATTEN 4880.

TROPICAL HIDE-AWAY - Bloomfield River, Ayton, north of Cairns; 27 acres freehold \$35,000 or one-third share (9 acres) \$14,000. Undulating with Savana gums; 200 m road frontage, power available; one mile from river, deep water anchorage; 300 m to beach. Creek and excellent soil. Phone Richard on 03-580-2075.

TASMANIA: 90 acres in Huon Valley, 40 min from Hobart. Overlooks river mouth and ocean. Mature bush with 15-20 acres for homestead and crops. Two dams, spring, two gold mines, very special energies. Sheltered for year-round growing. Organic growing area, free from commercial sprays. Region unique gathering place for artisans, musicians, organic growers, educators. Price \$30,000. Will consider partnership. Noah Gordon, 4 Dallas Ave, TAROONA 7006. Ph: 002-278-185.

WHY NOT PURCHASE half-acre block at Howlong 20 minutes from Albury/Wodonga. stones throw from Murray River? Town water, power, phone available. Fully fenced; rates \$190. Shops, school, transport nearby. What you save on land price will pay for heaps of fuel for commuting. Price \$4700, terms available. Ph: 060-215-469.

KENILWORTH, SUNSHINE COAST hinterland. High-set house on 3¼ acres. Tall gums, dam, BBQ area, hothouse and mountainous views. Bitumen road frontage, school bus passes, 5 min to town, 35 min to coast. Price \$65,000. Write Shane Smith, C/- Oakey Creek Road, KENILWORTH 4574. Ph: 071-460-127.

S-E QUEENSLAND - 26 acres, fenced, bitumen road frontage, power nearby, presently cultivated. Quiet area, lovely views; 2 km from small town with school and store; 10 min drive from Warwick. Price \$27,500. G. & J. Crittenden, 17 Clarke Street, WARWICK 4370. Phone 076-614-498.

OLD CHURCH ON 0.4 HECTARE at Telowie, quiet agricultural district 15 km north of Port Pirie. Good condition, currently occupied; ETSA power, phone, mains power, shower, kitchen sink and gas hot water. I'd like to find a purchaser who appreciates the potential to turn this solid stone building into a comfortable and unique home. Price \$15,000. For details and photos write P.J. Bott, 17 Railway Terrace, QUORN 5433. Ph: 086-4871 (M) ask for 282.

MUDBRICK HOUSE 24 SQ - Flowerdale, Vic. Needs some finishing off inside. All new appliances including potbelly stove. Creek frontage, permanent all-year-round water, magnificent state forest views. Price \$25,000. Ring Kevin. Ph: 03-241-9431.

TWEED COAST, NORTHERN NSW, 25 acres 5 km from beautiful beaches. Large comfortable caravan with aluminium annexe, adjoining amenities shed with septic, bathroom and laundry; 11,000 gal underground tank. Power and phone connected. Chook shed and chooks. Land currently used for grazing horses. Price \$70,000. Ph: 066-761-152.

GLEN INNES: 240 acres freehold, 9 miles from town. Land unimproved; 1300 m new sheep fence. Permanent creek on property; two access roads to boundaries. Price \$25,000. I.L.H. White, PO Box 480, GOSFORD 2250.

TOTAL SECLUSION with views, side of Toowoomba Range: 14 acres, two titles, 4-WD access; two home sites. Price \$18,000. Ph: 076-308-507.

OPEN-PLAN 2-STOREY CEDAR HOME on 40 acres beautiful country, 25 miles N-E Gympie, S-E Qld, 40 minutes from coastal beaches; 16 sq house has septic toilet, bathroom, hot and cold water, built-in kitchen, combustion stove, gas fridge, solar power plus back-up generators, phone connected. Large machinery shed/work shop, MF 35 tractor, slasher, tynes, harrows etc; 6000 gal header tank plus 6000 gal rain tanks. Trickle-irrigated orchard and gardens - all organically grown. All usable undulating land with 3 dams; selectively cleared, ex-dairy, frost-free. School bus passes door. Price \$85,000 - would suit joint tenants. Contact Paul McShea, MS 316, GYMPIE 4570. Ph: 071-865-167.

TOORLOO ARM, EAST GIPPSLAND: 209 undulating acres; half cleared, half bush. Secluded position 300 yds from lake, permanent spring; 6 dams, large shed; large 3 B/R fibro and W/B house; phone, SEC, electric and combustion stoves. Price \$130,000. Contact Odette Nichols, PO Box 6, NOWA NOWA 3887. Ph: 051-565-504.

URGENT SALE: 162 acres, 15 km to Grafton, only 4 km from Casino Road on fair track. Very beautiful secluded spot with sandstone cliffs for northerly aspect, well watered, mostly good timber and slightly acidic sandy loam that will grow everything. Comfortable 2½-room weekender with combustion stove; 10,000 litre water tank; big garage plus hayshed. Price \$45,000 ONO. Enquiries to A.W. Schulz, Wongabeena Casino Rd, via GRAFTON 2460.

HOBBY FARM - Bonville, 10 km Coffs Harbour. Three B/R/B/V home on 9 acres; brass fire. Flowing creek, native trees, chooks, barn, feed shed; 6-bay implement shed. Now horse and cattle stud 3 years old. Owners moving. For quick sale \$145,000 ONO. Terms can be arranged. T.P. & J. Moore. Phone 066-534-486.

ARMIDALE - 2¼ acres (rich black soil) with comfortable 2 B/R home plus sunroom, large living area. Wood heater in lounge. Fuel and electric stoves in kitchen. Ample water supply; 4 km city centre. Keen to sell. Price \$42,000 ONO. Carol & Tim, RMB 506, Dangarsleigh Road, ARMIDALE 2350. Ph: 067-725-830.

DEADLINES: GR 42 - JANUARY 27TH
GR 43 - FEBRUARY 2ND

TASMANIA - BEAUTIFUL SOLID Edwardian building, approx. 100 squares in excellent condition; 15 B/R, spa, sauna, tennis court. Situated on 30 secluded acres with good soil, some bush, permanent water, 65 km from Launceston, near mouth of Tamar River. Many potential uses. Price \$200,000. Ph: 003-834-188.

MID-NORTH COAST NSW: almost finished 4 B/R house on 18 acres. Hardiplank, iron roof; kitchen, family, lounge/dining, open fireplace, verandah 3 sides, faces north. Quiet forest area near river and small village. Block half cleared. Dam, rural outlook, railway on one boundary; beach 13 km. Price \$88,000. Ph: 065-594-386.

TIMBER 3 B/R HOME, peaceful setting on 5 sunny acres 35 km from Coffs Harbour. Fully cleared land, alluvial flats and gently undulating slope. High rainfall; clear permanent creek suitable irrigation with swimming holes. Electricity, phone, pump. Price \$40,000. Contact Pat Collien 066-545-223 or write Post Office, LOWANNA 2450.

CLASSIFIEDS

PROPERTY FOR SALE

DROUGHT-PROOF 40 ACRES: ideal grazing, crop county close Euroa, Vic. Town water, SEC, spring-fed dam, adjacent water-catchment forest. Fabulous views; granite boulder outcrops; Bush Haven log cabin, 15 sq. large verandah, workshop area. Cool in summer, cosy winter living around impressive granite fireplace. Price \$90,000 ONO. Phone Colin & Jan Maplestone, on 054-291-350.

TASMANIA - ACCOM/FARMLLET. Go bush with income - 2 B/R home, 2 S/C holiday units, 1 Mansard flat, workshop/garage. All set by large trout-stocked ponds on newly-fenced 32 acres with terrific mountain views. All in very good order of manageable size. Plans for development if wished. Below cost \$110,000. Ph: 003-695-240.

MURRAY RIVER RETREAT. Approx. 44 ha close to town; good home, electricity, phone, ample water, lush feed. Owner lived here 30 years. No floods, fires or poisonous sprays used. Ideal vegetable growing. Ph: 054-532-727.

LAUREL HILL NEAR TUMBARUMBA - 3½ acres with spring-fed dam; 3 B/R house just renovated plus 1 B/R house. Main road frontage. Would suit hobby farm; very good soil, no rocks. Price \$39,000 ONO. Ph: 049-333-225 after 7 p.m.

TINGHA, NEAR INVERELL, north NSW, 8 ha (20 acres) fenced; backs onto creek with permanent water. Remains of old house; brick chimney, power. Land cleared; 5 km from Tingha post office. Price \$12,000. Contact Charles Shewring, C/- 8/41 Lord Street, ST PETERS 2044.

CHARMING NEW 2 B/R HOME on 40 ha (100 acres) timbered country between Yamba and Wooli - N-E of Grafton at Tucabia, north coast NSW. Partly cleared, good fencing; two large dams. Price \$49,500. Ph: 066-448-310.

ADVENTURE BAY, BRUNY ISLAND, Tas. - island paradise for serious self-sufficient people; 24 cleared, well-fenced, productive acres on 2 titles sandwiched between miles of white, sandy beaches with good fishing and state forest. Solidly-built W/B house, lots of windows and combustion stove. Numerous large sheds: garage 25 ft x 20 ft workshop, garden shed, stables, tractor and implement storage, housing for pigs, cow bale, bunkhouse, chook shed, wood shed, stockyards. Abundant water from large dams - one stocked with goldfish; electric pump connected for irrigation. Mild east-coast climate, frost-free; 43 in rainfall. Unlimited natural resources for building and gardening. Established fruit trees, vegetable garden and berries. Long road frontage to north. Electricity and phone. Sufficient chattels and equipment for immediate operation. Good school with farm attached, medical centre, excellent vehicular ferry service. Price \$50,000. Phone Stuart & Liz Bennet on 052-931-131.

FIVE ACRES BEAUTIFUL SOUTH COAST bushland adjoining state forest, situated at East Lynne, 20 km Batemans Bay; 1 km general store, daily mail run, school bus; 10 km beaches and lakes of Murrumbidgee National Park; 10 km Clyde River and rugged mountain ranges of Budawang National Park. Temperate climate, 40 in average rainfall. Price \$25,000. Peter van Haef, The Old Highway, EAST LYNNE 2536. Ph: 044-786-149.

NEAR-NEW HOUSE OF HARDI-PLANK and iron. Would suit retired couple who like trout fishing, fossicking and quiet life. There are two churches, three garages, two hotels, cafe, big store. Good road to two New England towns. Price \$35,000 ONO. F.E. Richardson, Cramsie Crescent, GLEN INNES 2370. Ph: 067-321-160.

FIRST-CLASS GRAZING PROPERTY - 440 acres in beautiful valley. Ample water; old but comfortable home, good yards, sheds and fencing. Power and phone, school bus passes door, 14 miles from shopping village. Price \$180,000. PH: 066-657-155.

BUSINESS FOR SALE

POST OFFICE with 2 B/R residence on half acre. Sheds, carports, chooks, vegies, orchard, right on river. Tiny town has all amenities except high school. Price \$29,000 ONO. Details phone 050-289-211.

FREEHOLD COUNTRY STORE with petrol and newspaper sales, on 0.2 ha block, Moree area. Price \$50,000 plus s.a.v. Land on east side of range accepted as part payment Ph: 067-549-215.

VICTORIAN NORDIC SKI HIRE plus 3 B/R house on 1¼ acres situated edge of forest; 1983 nett profit 8 weeks \$43,000. No business costs outside winter season. Work 8-12 weeks year - rest of year free. Price \$123,000 plus retail S.A.V. Full details available. Ph: 002-237-969.

TO RENT

REQUIRE HOUSE WITH SMALL acreage where my kids and I can lead a peaceful, healthy life - not too far from Sydney's S-W suburbs as we have ties there. I'm a capable, active 41-year-old woman willing to work or caretake in return for lower rent. Area with outlets for selling my craft work would be ideal but not essential. Please contact Jean McGregor, 50 Glamis Street, KINGSGROVE 2208. Ph: 02-759-6203.

TWO WOMEN (27-40) looking for small farm to rent northern NSW or S-E Qld. Wanted on long lease - wish to be self-sufficient but not strictly alternative. Need land for small crops and animals. Cheap as possible as 40-year-old is pensioner and on limited expenditure. All replies answered. T. Tait, PO Box 16, MOOLOOLAH 4553.

HOUSE, COTTAGE OR FARMHOUSE required for rental - must be near school bus for 5-year-old twin boys; anywhere between Dorrigo and Coffs Harbour or surrounding areas. We are into 'grass roots' way of life. Karli Harrington, Darkwood Road, THORA 2454.

DEADLINES: GR 42 - JANUARY 27TH
GR 43 - FEBRUARY 2ND

YOUNG COUPLE looking for farmhouse-cottage to rent within 40 km or half-hour drive of Wollongong. I will be working as a registered nurse at the hospital. We are interested in a healthy lifestyle and want to grow vegetables. Phone 02-888-3129.

WANTED TO RENT: small acreage and reasonable house suitable for organic vegetable growing. Require permanent water; close to town. Prefer Victoria. Replies to V. Roberts, 37 Lampson Street, SUNNYBANK 4109.

FEMALE (22) wishes to rent older style house (prefer near beach, metro area) with one or two honest people. Vegie garden essential. Not interested in 'night-life' scene, but reading, music and discovering new things. I do smoke but rarely drink. Liza, 62 Clifton Street, NEDLANDS 6009. Ph: 09-386-7999.

COMMUNITIES

ONE-EIGHTH SHARE in 196 acres on Leven River N-W Tasmania. Small 28 ft x 16 ft 2-storey wooden house in rainforest clearing; mountain stream 20 m away. Northerly aspect, ample water, rich soil, virgin bush, many ferns. Share consists of 5-acre house site, rest in common. Leven Valley has many alternative-minded people. Photos and map available. Price \$11,000. Ring Tony 042-674-817.

FOUND - HEAVEN. Anyone interested in sharing a house on an exclusive island? It would also be an income earning venture. Spectacular sight now with hundreds of turtles laying. Shares only \$10,000. Phone 6 pm on 07-957-6043 or Kay Selby, 45 Brisbane Street, MACKAY 4740.

INVISAGE CHRISTIAN COMMUNITY, house fellowship basis, mudbrick, organic gardening. Seeking minimum of 6 couples, children, single folk, dedicated to Lord Jesus Acts 2:44. Multiple occupancy for S-W of WA. Possible obtain land \$40,000 to \$60,000 for 100 acres. Phil & Belinda Squirrell, 16A Hargrave Way, THORNIE 6108.

ONE-QUARTER SHARE of 64 acres at Golden Valley, Tas. New community of four families (three shareholders, one leasee). Permanent water, much forest, rocks, good clay, no power. Available share is undeveloped with natural clearings and good access. Price \$5000. Contact Arthur or Sue on 003-695-295 or write RSD 954B, GOLDEN VALLEY 7304.

SHARES AVAILABLE - 800-acre property at Lamook, NSW between Nimbin and Kyogle. The property has a unique legal structure that combines the benefits of a co-op lifestyle with the advantages of having legal title to your own two acres plus a further share in 550 acres of common land. Current price is \$8000 per unit. If you are interested contact us on 066-337-147 or write to Marjorie Smith, Secretary Billen Cliffs Unit Trust, Martin Road, LARNOOK 2480.

PARTNERS WANTED to purchase land on east side of range; \$12,000 available. Phone Otto 067-549-215.

COMMUNITIES OR FARMERS WANTED, preferably vegetarian. We are experienced in growing organic fruits and vegies, health and nutrition, wholemeal baking, bicycle workshop, yoga, making tofu, sewing and want to earn modest living. Perhaps run shop in village or small town. Heather & Dieter Brenner, C/- Post Office, LISMORE 2480.

ONE-NINTH SHARE in 513-acre property, 25 km N-W of Kyogle, NSW. Two-thirds of property forested, remainder divided into two grazing paddocks. Re-forestation projects under way. Community house with electricity, phone connected. We want to hear from people prepared to help develop immense potential here as residents in a co-operative, friendly venture. Families welcome. Price \$12,000. Vanessa Smallbone, Roseberry Creek Road, via KYOGLE 2474.

CLASSIFIEDS

COMMUNITIES

MEMBERS WANTED for new community on 580 ha in idyllic valley near Warwick. Permanent stream, flat pastures, steep, heavily-wooded ridges. Members are required to have spiritual awareness of the flora and fauna and each other, commitment to the New Age, organic approach to living. Each member is to co-operate in the survival of all members. For comprehensive information contact Peter & Jean Shelley, PO Box 403, WARWICK 4370.

SHARE IN 800-ACRE eucalypt forest property north coast NSW. One share for \$14,500 includes private use of 10 acres, part ownership of 650 acres and use of tractor, implements, sawmill. No illegal drugs. For information: Serendipity, Rosemary Zillig, PO Box 8, WOODBURN 2472. Ph: 066-822-365.

TWO SHARES IN 100 ACRES plus of beautiful rainforest; creek, some cleared land. Situated 6 miles from Dorrigo; 7 shares in all; good house sites each with caravan and tap water to site supplied by ram. Steiner school in town. Price \$12,500 each including caravan. Ph: 066-575-147.

ONE-NINTH SHARE available in company owning 150 acres at Stoney Chute, 8 km from Nimbin. Property has long permanent creek frontage, northerly aspect, gentle slopes, good soil and excellent building sites. Homesites are 5 acres, common land to be developed co-operatively. Cost per share \$12,000. Phone 066-891-237 or 02-810-0157.

NEW ENGLAND AREA NSW - 22 more working partners wanted for self-sufficiency and income producing venture. Cabin complex, land farming, ceramic and clay products, gem and mineral working, wood and timber processing, and others; \$18,800 gives twenty-fifth share of 1440 acres, buildings, plant and equipment. PO Box 32, INVERELL 2360.

ONLY 4 SHARES AT \$15,000 remain from original 10 shares to finalise purchase of 596 acres of tropical wonderland 26 miles from Cairns. Central location to major towns in NQ. Giles Highway and Mulgrave River frontage. Shows great potential for craft-minded people. Apply 'Atlantis', PO Box 21, ALYANGULA 5798.

OPPORTUNITIES

CHEEKY HORSE AND TRUSTING GOAT HERD need responsible loving attention from a couple who care. There's a garden with fruit trees, water, pretty secluded bush setting and cosy log hut. This 100-acre Mudgee farm wants caretaking in return for cheap rent. For information ring 02-407-2716 or 02-919-4865.

PERSON WANTED FOR small-scale soy food business. Small investment needed. Accommodation available. For further details phone Allan and Joyce on 07-449-716.

NANNY/HOUSEKEEPER TO LIVE IN. Own bedroom and bathroom. Must be in good health, non-smoker with firm Christian beliefs. Duties will include washing, cleaning, cooking and assisting with care of boys (6, 4, 2). New home with all mod cons on 30 acres of beautiful country on the Southern Tablelands of NSW. Terms of employment to be negotiated to satisfaction of both parties. Apply in writing to Mrs. 'Mac', C/- Grass Roots, PO Box 900 SHEPPARTON 3630.

CARETAKER(S) WANTED for partly established 10-acre tropical fruit block 17 km from Broome WA, to commence Jan/Feb 1984 for approx 12 months. Toilet, phone, laundry facilities available but would need own caravan. Facilities and site rent free in exchange for watering. John & Gwen Bucknall, PO Box 773, BROOME 6725. Ph: 091-764-912.

TASMANIA COUNTRY. Kind middle-aged male, female, down-to-earth, heading 75% self-sufficiency meat, vegies, fruit. Interests - spinning, weaving, music, painting, bushwalking. We require couple - man with expertise to help build outbuilding 18 ft x 12 ft March or April. Woman help general. Return food, shelter, outings, advice country and alternative lifestyles. George, Post Office, WILMOT 7310.

IONA NEEDS PEOPLE of the caring kind: a shepherd with experience. Remuneration possible, limited accommodation and free organic vegies, milk, eggs. Also wanted a builder, carpenter, architect, engineer with hydro interests. For further details about Iona and how you can become involved contact Malcolm & Zoe Hagon, PO Box 81, OBERON 2787.

CARETAKER WANTED. I am looking for a grass roots family to live on my fertile 17-acre farm on a delightful S-E Qld island with school, shops, PO, etc., in exchange for small amount of organically grown vegetables and eggs each week. K. Beck, PO, RUSSELL ISLAND 4165. Ph: 075-491-385.

WE WOULD WELCOME YOU to stay with us on temporary or permanent basis depending on compatibility. We are a couple with two children. We offer accommodation and food in exchange for a helping hand. Situated 10 miles from Herberton on the Walsh River. Write Angela Martello, PO Box 683, ATHERTON 4883.

LAND LINK

MARRIED COUPLE (one child) seeking job on farm. Qualified tradesman and registered nurse. Limited farming experience, eager learners. Experienced with horses and dairy cattle. Work in exchange for board. Farming experience and satisfaction in lifestyle main aim. Prefer NSW, Qld, or Vic. A. Moulton, 18 Underwood Street, CORRIMAL 2518.

FREE LABOUR IN EXCHANGE for peace and quiet. Guy (25), sheep farming, tractor driving, bush carpentry experience, with truck and tent would like to lend hand in Jan/Feb in NSW in exchange for fresh air and country cooking. Alternative house building or farming preferred. Ring Mark on 02-819-6629.

DEADLINES: GR 42 - JANUARY 27TH
GR 43 - FEBRUARY 2ND

WOMAN 45, WISHING TRIAL RUN at country living will caretake for 2-3 months from December 1984. Von Macdonald, 41 Marne Street, ALDERLEY 4051.

SERVICES OFFERED

PERSONAL BIO-RHYTHM CHARTS printed by computer showing emotional, physical and intellectual cycles. Send full name, address and date of birth (block letters please) to 'Bio-Charts', PO Box 115, CLEVELAND 4163. Charts for 100 days \$8, 200 days \$12, 400 days \$20 posted. Explanatory notes included.

THE COUNTRY NETWORK: a social, friendship and accommodation-providing group for gay men and women to help communication between country people and those interested in the country. Occasional gatherings. Monthly newsletter. PO Box 448, KINGSTON 2604. Ph: 062-956-932.

BRISBANE HOMESCHOOLING GROUP is a support and contact group for parents who are considering, or are educating their children at home, in preference to sending them to schools. Our objective is to provide contacts, information and resources to such people to promote home schooling in our community. Lyn Cargill, 148 Henson Rd, SALISBURY 4107. Ph: 07-277-7945.

ASTROLOGY, NUMEROLOGY. All your potentials in all areas of your life, from a psychological approach. Astrology: birth chart plus 90 min tape - \$25. Send date, time (if known) and place of birth. Numerology: 60 min tape - \$20. Send date of birth date of birth and full name at birth. E.C. Russell, C/- Post Office, MARYBOROUGH 4650.

HEALING AND RELAXATION massage by registered healer Vic. Spiritualist Union. Also get to know the real you through astrology (presentation folder or tape). Individual tarot consultations or party bookings Melbourne southern and eastern suburbs. Phone Shirley 03-584-5829.

LUNAR FERTILITY CONTROL based on the angle between the sun and the moon at your birth. Write for information and your fertile times, stating place, date and time of birth. Enclose \$5 for 12 months. Nadir Martello, PO Box 683, ATHERTON 4883.

FASTING FOR HEALTH and longevity. Rapid natural weight reduction; body rejuvenation; rest, sunbathing away from city smoke in relaxing country retreat. For bookings and more details write to 'Koorinal', THREE BRIDGES via YARRA JUNCTION 3797. Ph: 059-667-296.

HI! I'M LORRAINE from sunny Queensland. I've commenced an 'Introduction Service' aiming to assist by mail, most people in most situations in most areas. You are welcome to participate. For further information simply send sae with details about yourself to 'People Who Need People' Friendships, 33 Walkers Drive, BALMORAL HEIGHTS 4171.

WANTED

FRUIT PICKING REQUIRED - experienced, Leeton- Griffith, January onwards. Own accommodation. Box 153, YEPPOON 4703.

SURROGATE MOTHER WANTED. Dear mother we are a happily married couple who would dearly love a child. After trying all available treatment for blocked Fallopian tubes including IVF we have not been able to achieve a full-term pregnancy. If you can help us please write to B. & L. Ridchards, PO Box 630, CAMBERWELL 3124.

ARTS AND CRAFTS NEEDED for my craft shop to sell on a commission basis, especially pottery, spinning, weaving, crafts from local timbers or shells, paintings, macrame, jewellery etc. Please contact Marcia Cowen, Tropic Collection, MOSSMAN 4873. Ph: 070-981-651.

CLASSIFIEDS

PROPERTY WANTED

WANTED TO BUY IN TASMANIA or Eastern states, 100-300 acres of virgin bush. Important that land has year-round water supply, river or lake preferred. Dwelling not necessary. Write to Ken Glover, 141A Kennedy Street, STH HEDLAND 6722 or phone 091-722-380.

ACREAGE WANTED preferably NSW, by young couple (one child) interested in alternative lifestyle. With or without dwelling (electricity not necessary). Building permit and adequate water supply required. Have \$14,000 cash. Eagerly awaiting any replies. Arthur Moulton, 18 Underwood Street, CORRIMAL 2518.

COASTAL ACREAGE up to 40 acres Northern NSW. Power not necessary, must have good water. Contact Trevor, Post Office Box 525, DERBY 6728.

ACREAGE WANTED ON CREEK or near river suitable horses, small garden crops. Pretty setting, interesting land with slope, trees, secluded, maybe dam. Not steep gully country. Priced approx. \$15,000. L. Lincoln, 9 Kooringa Road, CHATSWOOD 2067.

SMALL ACREAGE WITH GROUND-LEVEL house required somewhere between Grafton and Gayndah. Electricity necessary. Peace and quiet main requirement. Reply: S.L., PO Box 2893, ALICE SPRINGS 5750.

WANTED TO BUY: approx. 100-200 acres with livable house or shed, situated between Grafton and Gympie, no further west than Kyogle. Must be capable of bringing in a livable income. If fully productive will pay up to \$100,000; if no income, up to \$60,000 or swap Newcastle home. D. Creevey, 19 Norfolk Street, GLENDALE 2285.

SOUTHERN TASMANIA: property/farmlet wanted with an established house on minimum of 5 acres pastured land. Must have permanent water. Priced to \$30-40,000. Write Christopher Sculthorp, 130 Bums Road, SPRINGWOOD 2777. Ph: 047-514-117.

COURSES

PERMACULTURE DESIGN COURSE: 12-26 June 1984: Mapleton Conference Centre, Mapleton via Nambour, Q. The course will involve all aspects of Permaculture Design and Principals in urban/rural/village situations in theory and practice, and will be held in an area of high-permaculture activity. Possibility exists to visit permaculture properties during or after the course. Contact Kim Christie/Max O. Lindegger, MS 956, Mapleton Falls Farm, MAPLETON 4560.

GARDEN AND ORCHARD

BOTANIC ARK NURSERY. Nut pines: Italian, Swiss, California, Torrey, Pinon, Korean. Plums: Natal, Kaffir, Damson, Sloe, greengage. Guavas: cherry, yellow, common, pineapple, Chilean. Locusts: honey, thornless, black. Walnuts: black, butternut, English Heartnut, Japanese, Texas, Wilson's Wonder, plus many other strange and wonderful delights. Send sae for brochure to Botanic Ark Nursery, Copeland's Road, WARRAGUL 3820.

LEUCAENA SEED—organically grown Peru cultivar leucaena seed for sale; \$4.50 per 250 g, \$9 per 500 g etc. Cultivation instructions provided and freight paid. E.M. Barford, MS 1109, MURGON 4605.

HERB FARM—over 200 varieties of culinary, fragrant, medicinal and old-fashioned herbs available. Retail and wholesale, will rail to anywhere. Send for free catalogue. Herb-It Farm, 71 Old Toowoomba Rd, ROSEWOOD 4340. Open to visitors Fridays, Saturdays, Sundays.

LIQUID SEAWEED for healthy plants. Maxicrop 100% organic liquid seaweed provides over 50 minerals, trace elements and natural growth promotants essential for balanced, healthy plant growth. Suitable for all plants. Available Australia wide in 250 ml bottles to 20 litre multiple concentrate. Phone Kelp Commodities 03-720-2200 or 02-428-5553 for brochure and nearest stockist.

ALOE VERA PLANTS for sale \$2.50 each postage included. Mrs. C. Williamson, MS 541, Sharon via BUNDABERG 4670. Ph: 071-799-486.

ARE YOU INTERESTED IN SWAPPING your seeds for any of the following: asteracea (Darwin lettuce), sword bean (climbing), chick pea, Red Land Long White cucumber, yellow egg tomato, small amount non-hybrid sweet corn, Indian climbing spinach, Indian cream melon (cobra melon), Florence fennel, round flat paw paw pumpkin, tamarillo (tree tomato), Chinese mustard, luffa, Limelight lime bean. We also have seeds to sell. Contact Myrtle Charteris, Brisbane Organic Growers' Group, 34 Heaton Street, ROCKLEA 4106.

LIVESTOCK

SHEEP FOR SALE—Romney ewes, white stud or black. Grow long lustrous wool for handspinning; big dual-purpose sheep—\$40 each. Information given to new flock owners. Westernport Romney Stud, phone 059-895-337.

HOMES WANTED for three young jack donkeys. Price by negotiation. Ph: 060-254-745.

INDIAN RUNNERS WANTED—two young females gently reared for Sydney homesteaders. Ph: 02-810-5643.

BEEKEEPERS. Any hive of bees could be the most productive livestock you have—most important is a good queen. We can airmail, until April, Golden Italian queen with instructions for \$6.00. Do not remove old queen till new one arrives. pay-order. Nairn Apiaries, 335 Fishery Pt Rd, BONNELLS BAY 2264.

GOOD WORKING DONKEYS and very nice foals for sale at The Roaring Lion Donkey Stud at Undalya via Auburn. Advice regarding handling and care will be given. For information ring Auburn (M) 088493 and ask for 149.

SHEEP AND LAMBS: black, white and coloured, excellent spinning wool. Polwarth and Merino wethers \$20; Border Leicester, Polwarth and Merino cross ewes in lamb to black ram \$25; ewe and wether lambs \$20. Also coloured fleeces \$6 kilo, railed anywhere. Ring or write Judy Smith, 'Milnegunya', Mungay Creek Road, WILLAWARRIN 2440. Ph: 065-671-384.

HANDCRAFTS

LARGE VARIETY HAND-CRAFTED leatherwork, custom-made orders taken. Send sae for details and quotes etc. to Bullen Leathercraft, PO Box 33, LOWOOD 4311. Ph: 075-879-295.

NATURAL PRODUCTS: raw materials for making essential oils, gums, balsams, extracts, natural chemicals, perfumes etc. Ideal for all soap, cosmetic and household formulas. Native plant products available. Formulations to your specifications. Literature search facilities and consultation available. Write to Australian Botanical Products, PO Box 187, RICHMOND 3121 for free product list.

CANDLEMAKING EQUIPMENT for sale. Books, beeswax, paraffin wax, stearine, wicks, moulds—metal, rubber, plastic—perfumes and powdered dyes. All at very reasonable prices. Also individual soap moulds, dyes and perfumes. Homespun wool \$5 per 100 g. Please send 30¢ stamp for details. Noelle Sporys, 89 Railway Parade, ELTHAM 3095.

HANDCRAFTED FIRE BELLOWS. We are handcrafting fire bellows from solid timber, leather and copper. They are attractive and very effective at reviving that dying kitchen stove, potbelly or open fire. Anyone interested should send sae and we will forward photograph showing our range, together with relevant price information. Trade enquiries welcome. Dave & Pam Jones, 721 Stuarts Point Road, YARRAHAPINNI 2441.

COUNTRY COTTAGE CRAFTS. Plants, herbs and all types of lavender, well below retail prices. Gifts in lavender, lemon verbena, potpourri, pomanders, dried flowers; gifts in baskets, herb pillows, soaps and many more bargains. Open 7 days. Ring before you come. Ph: 02-997-5402, 18 Eastview Rd, CHURCH POINT 2105.

HANDSPINNERS HAVE YOUR favourite pattern included in *The Southern Cross Hand-spun Pattern Book*. All patterns accepted will be acknowledged with name and address of author who will receive free copy of book. Send pattern with photo or diagram of article. Auscraft, PO Box 228, FAIRFIELD 2165.

ELFIN BOOTS AND SHOES. Tony and Heather wish to thank all customers for their support and advise that the business has changed hands. For illustrated catalogue and leather samples send sae plus \$1.00 to Myrtle Pettigrove, Bradford Road, LOCKWOOD RSD 3551.

AUSTRALIAN BUSH HATS. Authentic pioneer-style, genuine hand-stitched leather hats, wide brims, are available from me, posted anywhere in Australia. Inquiries from individuals and interested shops welcome. For more details write enclosing sae to M.B. Richards, C/- Post Office, IMBIL 4570.

CRAFT SELF-ADHESIVE LABELS. Personal or business—name, address, telephone. Size 51 x 13 mm; B/W \$25, colour \$35/1000 (min). Cheque with order; 3 week delivery. RIA Services, 6 Romney Street, LAUNCESTON 7250. Ph: 003-273-530.

SACHET, POTPOURRI SUPPLIES: Lavender flowers, rose petals, jasmine flowers, patchouli leaf, naturally sun-dried retaining maximum natural fragrance and colour. Delightfully fragrant vetiver root powder, sandalwood powder—\$9/200 g postpaid. Sandalwood oil—\$4.50/8 g postpaid. Wholesale rates start at 1 kg and are the best in Australia. Peter Hunt, PO Box 148G, PASCOE VALE SOUTH 3044. Ph: 03-386-2107 from 9.30 am to 9.30 pm.

CLASSIFIEDS

HANDCRAFTS

'FOREST EDGE' HANDMADE SOAPS – Castile, copra-olive, cold-cream soap, oatmeal, almond meal, pumice hand-cleaner soap, vegetable-oil soap. Made from pure oils. No added scents or colorants; 30 cakes \$15, 20 cakes \$12, 10 cakes \$8, single cakes \$1 each. Gift packaged single cakes in attractive cotton print bag with lavender sachet \$2.50; 10 for \$20. Post and packing up to 20 cakes Q. \$3.50, other states \$5.50; 30 cakes Q. \$4, other states \$7; singles 60¢ each. Forest Edge, C/- Post Office, BROOWEENA 4620.

FOOD AND KITCHEN

ORGANIC FRUIT AND VEGIES, rice, grains, nuts and sun-dried fruits. Aironic air ionisers, all-pure water filters. Samap and Corona grain mills, bread tins, stone-ground flour, herbs, books, gifts. All natural health foods, solar toys, free-range eggs, aloe vera, garlic and herb plants. Back to Earth Naturally, 173 Victoria Road, GLADESVILLE 2111. Ph: 02-893-335 Tues to Sat.

HOME STONE FLOUR MILLS. Mill your own stoneground wholemeal flour for cakes and bread at home with a Retsel Little Ark Stone Flour Mill. 'Endorsed by Housewives Association'. Write for catalogues to Retsel Distributors, PO Box 712, DANDENONG 3175 enclosing 3 postage stamps. Ph: 03-795-2725. Distributor enquiries welcome.

FOR SALE: Samap Little Monsieur handmill. Used once; \$110 postage included. J. Irving, RSD 239, Powlett Plains, via INGLEWOOD 3517. Ph: 054-385-236.

HEALTH DRINKS. Take your fluids naturally. Refresh yourself this summer with nature's own formulas. My recipes come to you for the benefit of your body and inner self. Come closer to the earth through your taste buds. To start you on your way to a refreshing life send \$5.00 to J. Peterson, PO Box 1465, NORTH SYDNEY 2060.

HOLIDAYS

ACCOMMODATION WITH CHRISTIANS in historic building, modest rates. Local interests include eucalyptus stills, wheat, sheep, gold prospecting, pony club, old mines, vineyards, wineries, model passenger railway, flour mill (stone ground), water skiing. No drugs, alcohol, cigarettes. Send sae to 'Pelican', INGLEWOOD 3517.

RIDING HOLIDAY – 6 days \$100, adults \$120. Only 40 minutes north of Newcastle. Horse care, forest trails, games, swimming, animals, farm life. You supply tent, we supply all else. Use our home as your own. Shared caravan accommodation available. Meet many new friends. 'Horsefarm', CLARENCE-TOWN 2321. Ph: 049-964-246.

JOIN THE DOMINO CLUB of Ayr situated on secluded beach near mouth of Plantation Creek. Families may take a week to get acclimatised before playing. As this is a high-block fishing hut, use the 12 ft punt with 3½ h.p. outboard to live off the sea. Domino sets, yabbie pump, prawn bait net and crab pots and dillies are provided. Contact Geoff Taylor, 9 Sydney Street, AYR 4807. Ph: 077-831-949.

MISCELLANEOUS

BECOME AN ARTIST quickly and cheaply. Are you letting time pass you by? Hurry! Start enjoying life and making money into the bargain. Paint for exhibition and sale. Secrets revealed. No gimmicks. Fourth edition almost sold out. Dozens letters of appreciation. Order now! Full price \$35 (includes post & pack). Send cheque M/O or sae for further particulars to A.J. Ryall, PO Box 705, COOMA 2630.

DEADLINES: GR 42 – JANUARY 27TH
GR 43 – FEBRUARY 2ND

MUSICAL INSTRUMENT MAKER – Appalachian dulcimers and lutes (renaissance, baroque) hand-made to personal order. Original designs closely followed. Choice of native or imported timbers. For price list and details of instruments send address and 45¢ stamp (separate) to Michael Sweeney, 'The Dulcimer Workshop', 33 Fraser Street, CLUNES 3370.

CAR STICKERS – our flag is part of our heritage. Support the many thousands fighting to retain our flag as it is. Our diggers fought for, and proudly behind, our flag. Will you? Send sae (foolscap), cheque or M/O for \$2.00. Display your sticker prominently. S. Adams, PO Box 60, WARDELL 2477.

WANTED BY AMATEUR WOODTURNER – few dozen banksia seed cones of WA Banksia Grandis or Bull Banksia; about 10 inches long and 4-5 inches in diameter. They can be 'turned up' into pleasant items. I will pay freight plus extra or freight plus sample. If able and willing to help please contact Stephen Marsden, 54 South Cres., NORTHCOTE 3070.

SEAWEED MEAL AVAILABLE. Vitagran Seaweed Meal is a mineral and vitamin stock food supplement made entirely from Australian seaweed. Vitagran contains over 50 minerals, trace elements and vitamins (including iodine) suitable for all animals. Available in 1.5 kg, 15 kg, 30 kg. Phone Kelp Commodities 03-720-2200 or 02-428-5553 for brochure.

SULKIES OR BUGGIES in any condition for Historical Museum Harness Club. All will be restored to full condition and used for show and pleasure. For right vehicles distance no object. I would be most grateful for any help. Andrea Balch, 15 Rokeby Park, MS 763, PIALBA 4655. Ph: 071-284-632.

DOUBLE-DECKER BUS FOR SALE. Leyland 600D in very good going condition. It has been our home for a long time – great rent saver. Suitable also for travel, advertising, unlimited uses. Needs someone who cares. This model in such good condition is becoming very rare. Price \$3500 ONO. Ph: 049-732-680.

INGLEWOOD MINIATURE PASSENGER railway. Ride behind steam loco third Sunday every month. Diesel mostly available. Proceeds to charity model trains etc. Ph: 054-383-036.

SUSPENSION BRIDGE – main cables have hangers cut to length and clamped on, plus stay cables, extra clamps, etc. Span 30.5 metres; carry 1½ tonnes. Supply own decking, supports and anchors. Price \$2200. David Castleden, 'Old Auburn Vale', INVERELL 2360. Ph: 067-230-216.

SAUNDER'S FORCED-DRAUGHT 144-egg incubator \$200; hand corn grinder, burr plates \$30; 2-frame honey extractor, hive tools, supers (full and half depth), some new frames to suit, base boards, lids and queen excluders \$150. Andrew & Maureen Pulford, C/- Post Office, SANDY CREEK 5350. Ph: 085-258-027.

OLD MOTOR BIKES WANTED in reasonable condition. Harley, Indian, Triumph, Excelsior, Ariel, Crocker. Prefer around 1940 models. Write to me enclosing a recent photo if possible. Rob Harris, 19 Brownsmith Cre, KAMBAH 2902.

HELPS RELIEVE ACHING LIMBS, sleeplessness, tension etc. Lullaby Magnetic Pillow. Sold Australia-wide; \$13.99 each plus \$2.00 P/P. A convenient size to use anywhere, anytime. An ideal gift. Lindsay House GR, 5 Grange St, TOOWOOMBA 4350. Ph: 076-325-378.

RELUCTANTLY I AM SELLING my home-made gypsy van – a comfy and sturdy vehicle which can be drawn by one heavy or two lighter horses. Brightly painted, it has shuttered windows, complete with bed, sink and plenty of storage space. As I am going overseas I must sell quickly. Price \$1000 ONO. Penny Walton, C/- 21 Acacia St, COLLAROY PLATEAU 2098. Ph: 02-985-955.

AGA TWO-OVEN STOVE with HWS connections. Can be seen operating. Converted to oil-fired but all parts for conversion back to solid fuel are available and together with flue are included in sale. Delivery can be arranged. Price \$1000. Sid Hayes, 28 Central Avenue, BORONIA 3155. Ph: 03-762-2930.

ONE 6 INCH LINGA FUTON for sale with cover, very good condition. Price \$60 ONO. Contact Marg Ridgway, RMB 6899, ELDORADO 3746. Ph: 057-251-675.

FLURO LIGHT INVERTERS: 12 v 15/20 w \$28.70; 12 v 40 w or 32 v 40 w \$32.15 (p & p \$1). Deep-cycle batteries available. Duplitate, INGLEWOOD 3517. Ph: 054-383-036.

PUBLICATIONS

TASMANIAN BUSHMAN'S NOTEBOOK – descriptive, philosophical, whimsical cameos of Tasmanian country life. Makes ideal gift; \$4 post paid from author-publisher, Bob Benemann, 25 Delamere Crescent, LAUNCESTON 7250.

ENJOY A NEW HIGH WITH LOVE. Improve the quality of your life. Reconstruct your strained relationship or marriage. How? Read *The Lost Philosophy of Love* by Roy Victor Love. This is a clean, simply written, non-political, non-religious, colourful, attractive and educational booklet, suitable as a gift to readers of any age. Price \$4.00 posted (surface Aust. NZ). Love Publications, 43 Didcot Street KURABY 4112.

101 EGG RECIPES – this book is full of excitingly different recipes for the humble egg and includes many very economical dishes and cook-ahead meals. Price is \$3.95 post paid. Also *101 Sausage Recipes* – \$3.95. Paddy's Recipes, Post Office KELSO 2795.

'ANIMAL FRIENDS' the new quarterly magazine for animal lovers is out now for \$1.25 or send \$5 – Special Introductory Offer – 5 copies for \$5 posted to you. 'Animal Friends', Broomtail Publications, Camp Road, RSD, EAGLEHAWK 3556.

CLASSIFIEDS

PUBLICATIONS

FOLK DANCES OF EUROPE – a lively and interesting collection of 80 traditional dances and their cultural background, with detailed instructions and attractive illustrations. This book, covering 18 different countries, will delight all those interested in folk traditions. Price \$7.50 includes postage. Beverley Barnes, PO Box 542, NORTH ADELAIDE 5006.

FIBRE FORUM is the tri-annual magazine of the textile arts in Australia. Subscriptions in 1984 are \$13.50. Articles on all aspects of textile expression, many of them practical. Write to The Australian Forum for Textile Arts, PO Box 77, University of Queensland, ST LUCIA 4067. Sample copy of magazine \$3.00 post paid.

VERSE FROM THE FORGOTTEN CORNER. This book is a lighthearted, down-to-earth look at different aspects of country life from past to present. Illustrations complement verses. Titles such as 'Wombats', 'New Settlers', 'The Homestead', 'Old Timer', make this book enjoyable reading for everyone. Price \$5.00 posted. Valley Verse, PO Box 61, EDEN 2551.

BOOKS – BOOKS – BOOKS for animal lovers. Send sae for free lists of books on animals. Books on horses, donkeys, mules, dogs, cats, goats etc. Broomtail Books, Camp Road, RSD, EAGLEHAWK 3556.

CONTACTS

COUNTRY GENT (46), honest character, non-smoker, social drinker, divorced, owns small property, house, car, seeking company of attractive lady to 35 years, child welcomed. Must be interested in quiet country lifestyle and possible permanent relationship. I love children, family involvement, enjoy travelling, camping, bushwalking, photography, and all things natural. Brian, C/- Box 900, SHEPPARTON 3630.

IF YOU ARE MATURE, vegetarian, non-smoking person looking for communal home in Highgate Hill, Brisbane, maybe this is the place for you. We're looking for someone to join us (4) in a large 6 B/R house with nice garden. Ph: 076-448-961.

FEMALE IN EARLY THIRTIES planning 2-3 month trip around Australia beginning early February. My itinerary is unsure at this stage, however I would like some company. Compatibility would need to be established. Interested people write to Frances Reid, 'Hillfield', Pentland Hills Rd, MYRNIONG 3341.

HOMELOVING SINGLE LADY OF 40, romantic and loving, Christian, would like kids of her own. Fit and active, loves pets, gardening. Seeks a warm loving companion for permanent relationship. Prefer non-smoker and non-drinker. Write to Dinah Pangilinar, PO Box 324, Seria, State of Brunei, BORNEO.

SINGLE CATHOLIC LADY, 40, seeks male life partner, non-smoker, non-drinker. She loves home life, plants, pets, own kids. Betty Tanglao, 1641 Zamara Street, Welcome Home, Paco, MANILA, Philippines.

USUALLY QUIET, SOMETIMES CRAZY, 38-year-old north European Cancerian would like to hear from an intelligent, industrious GR lady to share his 50 acres on S-E Tasmanian coast. Daniel Vliegen, RMB 1180, KOONYA 7187.

COMPANION WANTED by lonely male (49). I am at present establishing myself in a communal farm outside Glen Innes in NSW, my small house now being at an advanced stage of completion. I am not into drugs, excessive drinking, religion or the occult. I enjoy good music and good conversation and I am told that I am a very kind person. I would prefer someone in my age group, any origin; a down-to-earth person capable of a simple lifestyle and with no major hang-ups. I aim at a stable long-lasting relationship that grows with time despite the inevitable ups and downs. Please reply to George Kokinakis, PO Box 178, GLEN INNES 2370.

GENTLE ITALIAN, 65 years young, needs slim lady to 45 to share life, love and laughter. Please send photo. Will answer all letters. I have my own house and car but need a lady to share my life. Rinarto, 49 Edmond Street, BUCASIA 4741.

I'D LIKE TO MEET and correspond with other gay women with earthly soul spirits. I'm 29 and will be travelling to Qld with car and dog. I love the sea, bush, spiritualism, meditation, travelling and meeting harmonious people. Pam Griffin, 4 Blair Road, BELGRAVE 3160.

WANTED URGENTLY – slim lady to 30 years to reform big guy (34), very gentle but sloppy, who likes a drink and smokes, but wants someone to share life. Have good job and love to fish. Please send photo. Ray, C/- Selby, 6 Duncan Street, MACKAY 4740.

HELLO! I'M MARGARET – a Christian business lady in 40s, seeking male companion, general friends for weekend outings, occasional free day. Interests include bush walking, gardening, restaurants, correspondence, ballroom dancing. Interested? Write to Margaret Jones, C/- PO, UPWEY 3158.

YOUNG 43-YEAR-OLD professional gent, warm and outgoing, Virgo, non-smoker, social drinker, garlic eater, needs companionship of femme with good sense of humour, 25-45 years old, to share life and goals on 10 acres of wildlife environment, with nearby fishing and surfing on far north coast of NSW. I enjoy good music, cinema, people, reading, wildlife and gardening. 'Wallaby', C/- PO Box 900, SHEPPARTON 3630.

PETER HAS LOVELY FARM to share with slim lady (non-smoker 35-45) who loves the bush, enjoys painting or art galleries, plays music or enjoys listening to classics, likes swimming, canoeing, caravanning around opal or gold towns, collecting gemstones, golf, picnics, factual TV, Aussie history, keeping fit. Ph: 054-632-353.

I AM A HEALTHY COUNTRY FELLOW building home on my own farm near Toowoomba. I am quiet, easy to get along with a pleasant personality. I would like friendship of single, marriage-minded lady (20-30) who is a practising Christian, with good morals and is non-drinker, non-smoker. David Zimmermann, PO Box 502, TOOWOOMBA 4350.

COMPANION WANTED by fit 42-year-old, 10 st, 5ft 6 in American builder who is purchasing orchard acreage in N-E NSW. Slim, single gal wishing to share in venture plus travel with view to marriage contact Roger Cline, C/- Herberts, Rose Road, THE CHANNON 2480. Ph: 066-891-366.

GAY MALE COUPLE (20-32) living in quiet country town, Tasmania, would love to hear from, or meet, truly open-minded GR people anywhere. We feel lonely – an oasis in a desert of narrow mindedness. We are warm caring (but masculine) thinking guys. We need real people with whom we can identify. We love life, mountains, snow, wild rivers and the bush of this beautiful isle. If holidaying we can put you up and show you around. Please write Bob & Mark, PO Box 51, WESTBURY 7303.

LIFE COMPANION WANTED. I hope to find young lady (seems that no girl wants to live in the country) interested in practising natural living (crafts, biological gardening etc.). I am 20 years old, vegetarian, non-smoker, realistic, sportive and hard working, but not a fanatic. I practise yoga, am a philosophical thinker and believe in universal religion. Is there a soul mate with same interests to form friend/relationship? I would be pleased to receive your letter. 'Oliver', C/- Post Office, COOMA 2630. *

MAN 50 YEARS with large river property would like to meet lady to 50 who is affectionate, clean tidy, interested in alternative lifestyle. I am country experienced, handy most trades, resourceful. I drink and smoke. Aspirations are self-reliance, happy relations. House partly built. Jim, 2/27 Preddys Road, BEXLEY 2207.

AUSTRALIAN MALE (28) living alone on property seeks warm-hearted woman with view to permanent relationship – child OK. My interests include photography, growing my own vegetables, music and farming. Please reply to P.J.H., 'Wirrah', WEE-WAA 2388.

COUPLE WITH TWO SMALL BOYS living in Melbourne wish to meet similar couple or single parent to jointly rent or buy large house in city with view to creating an extended family environment. Ideally would like three families under one large roof. Phone Caroline on 03-873-5346.

IF YOU ARE A HEALTHY FIT LADY over 30, and would like to roam the world – dive, ski, sail – with a mellow health-nut Yank then write to me. I am building a steel yacht that needs a lady's touch. Contact Jim Bushell, PO Box 401, MACKAY WEST 4740.

ANNE, 41, WITH THREE TEENS. Life – agriculture, horticulture, husbandry, strong body; spirit – independant, intelligent. We have a little capital, not enough for solo venture. Anyone in Yarra Valley or N-E looking for shares, whatever, please write H.A.S., PO Box 52, WANDIN NORTH 3139.

SINGLE LADY, 18, would like to meet loving, honest man for permanent relationship. She loves dancing, plants, animals, own kids. Riza Ricana, 285N-Pdel Rosario Extension, Cebn City, PHILIPPINES.

PROFESSIONAL, 54 years young, seeks to correspond with slim intelligent lady to 40 – if possible Cairns/Townsville areas, view to outings, friendship. Write Alan, C/- K. Doherty, 45 Brisbane Street, MACKAY 4740.

MIDDLE-AGED ACTIVE nature-loving female needs GR-type male to purchase 2 ha block in quiet beautiful country area. Block borders on my 10 ha of trees, grass and water – would complement it ideally and all 12½ ha could be worked and enjoyed mutually. 'Bush-lover', PO Box 39, HEATHCOTE 3606.

CLASSIFIEDS

CALENDAR EVENTS

FIBRE INTERCHANGE 84, 13-18th May. The 4th Biennial Conference of Australian Forum for Textile Arts. Workshops include weaving garments with imagination; fabric printing and painting; advanced tapestry design; creative exploratory knitting; fashion fabrics fashion styled for the handweaver; setting up simple weaving structures; applique; from plants to paper to collages; contemporary batik printing; natural fibre basketcraft. Venue - Canberra Grammar School, Flinders Way, Red Hill. For further information and enrolment forms contact Fibre Interchange, GPO Box 159, CANBERRA 2601.

LATE CLASSIFIEDS

TWO BLOCKS LEFT FOR SALE in 540-acre community Bellingin/Bowraville NSW (located 7 miles from Bowraville); 100 acres – mostly bush with some cleared flats, good soil, ideal for vegies. Ridges, timber, some N-E slopes for tropical fruit, good home site; access to electricity and water. Price \$58,000. Sixty acres, similar to 100-acre block, with cleared flats, ridges, excellent views and home site; N-E aspect, good soil and excellent bush; access to water and electricity. Price \$50,000. Both blocks have own title. For more information ring 065-647-453 or write to Oreoco P/L, Bellingin Road, BOWRAVILLE 2449.

BUNDAGEN – coastal community in northern NSW. Some membership currently available; \$3000 per adult. For further details write to The Secretary, Bundagen, C/- Post Office REPTON 2454. Phone 066-534-529 or 066-551-721

BEAUTIFUL PRIVATE VALLEY OF 48 acres, half pasture, edge of S-W wilderness, Tas. Two permanent unpolluted creeks with trout, swimming hole and exclusive access to 200 ft waterfall; 6-acre blackwood and pine plantation. Carefully carved solid celery top and Huon-pine 2-storey cabin with leadlight windows, stone bathroom, combustion stove and potbelly, auto washing machine, phone etc. Garden by creek. Fully equipped to operate without Hydro. Generator, ram pump, Michelle Banki turbine, 5-ton truck, included. Sheds, good fencing; 5 min to PO and general store; 15 min large country town, end of school bus run; 35 min Hobart. Supportive community for GR people. Price \$60,000. Ph: 052-931-131.

VERY LARGE OLD-STYLE 2-STOREY
W/B and fibro home on large elevated block in
quiet pleasant surroundings. On made road,
bus passes regularly; one mile to shops, schools,
and Sherbrook forest. Phone, water, septic.
Needs improving but who doesn't? Price \$39,000.
Phone Howard or Gil Birstihl 03-329-8710
(BH), or write C/- Northside, 376 Victoria
Street, NORTH MELBOURNE 3051.

LAND WANTED TO 50 ACRES, N-E
Tasmania; permanent water. Denis Ferris,
Youth Hostel, BICHENO 7215.

BOB GIBSON'S GUIDE to financial survival in the 1980s. GR readers send 2 x 30¢ stamps then \$2 *after* you have received GG on trust. A proven uncomplicated guide to show adults and developing children a sensible way to handle money. Proven over 20 years of survival on low income by father of six. A must for schools and caring adults. Bob Gibson, PO Box 2642, JINGELLIC 2642.

MOSS VALE AREA NSW – 25 acres fully fenced into 4 paddocks; 2 dams. Chook runs, aviaries, sheds etc. 3 B/R split-level home with all services. S/C stove, open fireplace; magnificent views. Tar-sealed road in secluded area of southern highlands. Price \$80,000. Phone 048-789-183 AH.

COLOURED CROSSBRED FLEECES for sale – long staple, clean, heavily skirted, ideal for spinners. Only black, dark grey, and dark brown available at this stage. Average weight of skirted fleeces is 2½ kg; will sell in 1 kg lots for \$4/kg plus packing and postage/rail freight. David Lawton, 'Kandramooka', BUNDARRA 2359. Ph: 067-233-477.

SINGLE GR LADY 24 YEARS, would like to correspond with anyone M/F, to share experiences and philosophies. Write to Angie, RMB 1125, TATURA 3616.



CLASSIFIEDS

Help! Our classifieds are too popular! To cope with their increased popularity we've altered the payment to an individual word basis – 25¢ per word. Please be brief and send form with payment to arrive by the deadline for the issue in which you would like your advertisement printed.

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Information Available

When contacting associations or newsletters listed in Information Available, please, out of courtesy, include an SAE, and mention that you heard about them in Grass Roots.

SOME TREE FRUITS FOR TROPICAL AUSTRALIA

Written by D. McE. Alexander, P.B. Scholefield and A. Frodsham, and published by the CSIRO, this 56-page booklet is an excellent reference for anyone interested in the lesser-known and unusual fruit varieties. The fruits covered are: avocado, carambola, cashew, Chinese jujube, date, durian, guava, jaboticaba, jackfruit, langsat, litchi, longan, mango, mangosteen, pummelo, rambutan, sapodilla, soursop, sweetsop and West Indian lime. Sections on each fruit detail its origins, growing conditions, characteristics, propagation methods and uses, and in the introduction there are rainfall, temperature and evaporation maps of Northern Australia. Colour photographs of each fruit supplement the text in this informative and interesting booklet. *Some Tree Fruits for Tropical Australia* is \$5.00 posted from:

CSIRO
Central Information, Library & Editorial Section
PO Box 89
EAST MELBOURNE 3002.

FLEECE AND FLOCK

Subtitled *A Guide for Handspinners, Weavers and Coloured Sheep Breeders*, this 80-page booklet has been put out by the South Australian Coloured Sheep Owners' Society Inc. as a useful reference for crafts-people. Most of the book is taken up with the details of each different flock registered with the society and a fleece entry on the type of wool it produces. A section on fleece selection lists the different breeds and the quality and uses of their wool, and on the back cover is a fleece-count indicator to accurately gauge the wool crimp measurement. *Fleece and Flock* will enable spinners and weavers to identify those flocks producing the kind of fleece they are interested in. Available for \$2.80 posted from:

South Australian Coloured Sheep Owners' Society Inc.
PO Box 110
EASTWOOD 5063.

MUDBRICK NOTES

Mudbrick housing can provide a necessary first step out of the over-complex and self-destructive life in which many of us have been incarcerated. The imagination is readily stimulated by discussion of the possibilities of earth construction but actually building your house with your own hands can be intimidating. These notes are designed to provide sufficient detailed practical advice to enable you to contemplate taking this big step. Price is \$3.20 posted from:

Earthways
WOLLOMBI 2325.

RURAL RESETTLERS UNITE!

Low-cost rural resettlement co-operatives may be excluded from the umbrella of the National Co-operative Housing Conference unless more input is made by resettlers. At its Annual Conference 17-19 June in Melbourne, resettlers were conspicuous by their absence. Most of those attending were familiar with the urban rental co-operatives in the southern states and were prepared to exclude resettlers on the grounds that they were rich enough to own their own land and houses – even though they were co-operatives. It is to be hoped the Conference accepted the point that low-cost rural resettlers should be entitled to government financial support as much as urban rental co-operatives.

Because the explicit and implicit legal problems facing low-cost rural resettlers are stronger than those facing urban rental co-ops, they need representation by a national body. A strong, national-level drive is now vital – what about forming a rural resettlers' union to push the case? If you would like more information on the policy of the national housing co-op body contact:

National Co-operative Housing Conference
80 Johnson Street
FITZROY 3065.

IDENTICARE — a 'self-help to help others' project

Identicare is a gold or chrome-plated metallic capsule, the size of a ten-cent piece, which can be worn as a pendant or bracelet. You unscrew the face of the capsule and fold into the hollowed-out area, your own personally prepared information certificate. This can include name and address, blood group, important phone numbers, medical conditions, special treatments etc. The Identicare is water resistant and can be worn constantly.

Not only does this product provide the public with an inexpensive body-worn health identification/information system, but funds from the sale assist the Association maintain satisfying work opportunities for its severely physically disabled employees. For further information and an order form contact:

Australian Quadriplegic Association
1 Jennifer Street
LITTLE BAY 2036.

SOLAR ENERGY PATENTS — An Australian Patent Office Technology Evaluation Report

The Australian Patent Information Service (APIS), was formed in 1978 to assist Australian industry to exploit the wealth of technological material locked up in the Patent Office's world-wide collection of patent applications. APIS recently completed a study of solar-energy-related patent specifications and have recorded the results in *Solar Energy Patents*.

Part I, *Solar Thermal Energy*, includes flat collectors; covers, housings and insulations; heat pump and refrigeration; thermal storage; solar ponds; solar absorber surfaces and coatings, and more. Part II, *Direct Energy Conversion*, includes information on monocrystalline, polycrystalline and amorphous semi-conductor photovoltaic cells; anti-reflective coatings and surfaces; concentrators for photovoltaic cells; thermoelectric and thermionic generators, and more.

Solar Energy Patents was published in September 1983 and is priced at \$21.95 plus postage (NSW: \$2.50; Vic, Brisbane and Adelaide: \$4.00; Tasmania: \$4.40; Qld and SA country: \$4.60; Perth: \$5.20; WA country and NT: \$5.60.) Available from:

Mail Order Sales
AGPS
GPO Box 84
CANBERRA 2601.

CENTREPOINT

Centrepoint is the quarterly publication of the Centrepoint Community Trust in Albany, New Zealand. The community, which grew out of the humanistic psychotherapy movement in the 1970s, encourages each person to find their own spiritual path. Members give up all personal possessions, make a commitment of honesty to themselves and to each other and live in an open communal lifestyle. Each issue of *Centrepoint* features a transcript of a talk by the spiritual leader, Bert Potter, and articles written by community residents about their experiences. Different themes are also explored such as change, children, freedom, loving, parents, and in this issue, psychotherapy.

A catalogue providing background information on the Centrepoint Community, its structure, people, activities, personal-growth workshops, residential visitors' guidelines etc., is available free of charge. Subscription to *Centrepoint* magazine is \$4.00 in NZ, and \$7.00 (NZ) in Australia.

Centrepoint
PO Box 35
ALBANY, AUCKLAND NZ
Ph: 4159-468.

Information Available

VEGETARIAN MENUS — The Humane Alternative

This 130-page recipe book, compiled by Elizabeth Ashcroft for Animal Liberation, contains four weeks of menus for both summer and winter, covering breakfast, lunch and evening meals. Both the novice and experienced vegetarian cook will learn from the introduction, nutritional section and ingredient descriptions. The menus progress from meatless meals to meals without any animal products and are all handprinted and illustrated. Animal Liberation supports vegetarianism as an action against the cruelty involved in raising and slaughtering animals for food in modern society. *Vegetarian Menus* is \$5.80 posted from:

Animal Liberation
PO Box 1787
BRISBANE 4001.

NEW BAGS FOR HANDWORK

A new concept in storage bags has recently been released by Glad for small storage problems. Heavy-duty bags, which can be sealed and re-opened many times: they feature a water and air-tight seal which you pull apart to open and pinch together to close. Ideal for storing unfinished knitting and sewing or pattern books, or for protecting craft work from dust and moisture.

Glad Snap Lock Bags are available at most supermarkets.

MAKING PAPER in New Zealand — May Davis

This delightful-looking little book explains how to make paper from both recycled paper and plant fibres. The information is clear, precise and easy to follow, and is backed up with illustrations and photographs. May Davis proves that papermaking need not be an expensive or complicated hobby. Details are provided for making a mould and deckle, and a number of alternatives suggested for pulping the paper or plant fibres. A blender, carefully used is ideal or for larger quantities, a washing machine. Other areas covered in the book include sizing the paper, couching with felts, watermarks, envelopes, large pieces, special effects and problems. *Making Paper* has been published by the Native Forests Action Council. Price is \$7.40 posted in NZ and \$7.90 surface mail overseas.

Native Forests Action Council
National Office
PO Box 756
NELSON NZ.

WORKER CO-OPERATIVES/COMMON OWNERSHIP COMPANY

A worker co-operative or common ownership company is a business enterprise that is owned and controlled by the people who work in it. They are not restricted to any particular type of business activity and can be either a small or large-scale operation. Several pamphlets are available free of charge —

Helping Workers Help Themselves

An Introduction to Worker Co-operatives/Common Ownership Companies

Common Ownership Development Agency

Eligibility Guidelines

Write to:

NSW Worker Co-operative Development Committee
Department of Youth and Community Services
PO Box 228
PARRAMATTA 2150.

REPLENISH THE EARTH

Simple in style and format, *Replenish the Earth* is a study and reference source of the Catchment Philosophy and contains much information which is not readily available elsewhere. This 88-page book seeks, realistically, to inspire the active interest and practical involvement of all individuals, groups, disciplines and institutions in the objective of the World Conservation Strategy, which is 'Living Resource Conservation for Sustainable Development'. There are sections on metropolitan catchments, groundwater, erosion — salinity — irrigation, forest conservation,

national parks, environmental education and more. Conservation, defined as the proper management of renewable natural resources that have a cycle of growth, climax and regeneration, is the concern of this book *Replenish the Earth* which is \$8.30 posted from:

The Director
Catchment Educational Trust
485 George Street
ALBURY 2640.

THE AUSTRALIAN GARDEN JOURNAL

This attractive, bi-monthly magazine is the official journal of the Australian Garden History Society. Articles cover topics such as colonial gardens, early landscaped gardens, rare plants, garden seats, sundials, historical snippets, vegetables and fruit, handy hints, recipes, book reviews and Garden Cuttings — a media update on what's happening in the garden world. Not a self-sufficiency magazine but one for people who love and appreciate the gardens and plants of yesteryear. A year's subscription is \$12.00.

The Australian Garden Journal
PO Box 279
EDGECLIFF 2027.

ANIMAL FRIENDS

Animal Friends is a new magazine on the market aimed at animal lovers — the many people who keep animals as friends and companions rather than with the view to making money from them. Strictly speaking it is not a new magazine, but an old one with a new name and enlarged horizons. It incorporates *Broomtail*, a magazine that has been circulating for ten years to donkey and mule lovers. *Animal Friends* will still cater for the many lovers of these long-eared equines but will also carry stories, photos, helpful advice and news snippets about all animals kept as 'pets' or companions. It will have several regular features such as a veterinary advice column written by a vet in practice, book reviews, a junior page etc.

Animal Friends is published by 'Broomtail Publications' and edited by Ann Walker, author of several books on animals, the two most recent being *A Joy of Wild Asses* and *Talk With The Animals*. It will appear quarterly at \$1.25 an issue. For a limited time only take advantage of this special introductory offer and send \$5 for 5 issues posted to you.

Animal Friends
Broomtail Publications
EAGLEHAWK 3556.

TWO PRODUCTS FOR THE HANDY PERSON

Two products brought to our attention recently may be of interest to the home handyperson. REE (Raw Earth Emulsion) is an acrylic polymer-based product especially designed for sealing, glazing, and joining mudbricks for internal and external use. It has excellent ultraviolet light durability, weathering ability and chemical resistance for utility areas. The second product is Special 'M', a high-performance cement modifier which allows ultra-thin layers of cement mortar to be applied, and not only maintains but also improves the toughness of the mortar. An information brochure is available from hardware shops or from:

AV Adhesives
Bridge Road
KEYSBOROUGH 3175 or 27 Edgar Street
NORTHGATE 4013.

PERMACULTURE DESIGN COURSE

A two-week design course aimed at training people to be permaculture design consultants will be held at the Permaculture Institute, Stanley, from May 12-26, 1984. Content includes design principles, on-site planning, urban and rural strategies, water and soil management, plant/animal forage systems, and alternative economic and legal strategies. Price is \$500 (includes room and board).

Permaculture Design Course
PO Box 96
STANLEY 7331.

Book Reviews

TALK WITH THE ANIMALS – Ann Walker. RRP \$6.95. Soft cover, 198 pp, Aust.

If you share your life with animals, you'll find this book very inspiring and stimulating reading. We are all familiar with the character of Dr Doolittle, who has caught the imagination of many people throughout the years with his ability to communicate with animals. Ann Walker suggests that there is nothing particularly remarkable in this feat. In her book *Talk with the Animals* she explains that the basic requirements for communication are real love and understanding of animals as individuals and personalities in their own right, and a willingness to learn to convey your meaning in a manner they can comprehend.

Learning the language of animals isn't as strange as it may sound – after all most animals understand our language. Many obey commands such as 'sit', 'roll-over', 'outside', 'heel', and 'whoa'. Ann feels it is just as important that we learn their language. To increase our understanding of animals we must be more receptive to their needs and feelings and be more observant of their behaviour.

Ann explains how to communicate with animals without words and cites many examples of when her animals 'seem to know' and are aware without any verbal contact. The book goes into detail about why animals are great companions for young and old, for the sick and the disabled. Her own affinity with animals is evident throughout the book and the various experiences she narrates make for interesting and instructive reading. LH

EMBROIDERY: new approaches – Jan Beaney. RRP \$22.50. Soft cover, 96 pp, UK.

This exciting embroidery book is a far cry from the dreary references most of us used, to learn basic stitchery and gain inspiration from, when we dutifully cross-stitched tablecloths or stem stitched our initials on cookery aprons. *Embroidery: new approaches* is exactly what the name implies; it looks at modern embroidery – at drawing and design, colour and texture and threads and materials. Finally, it proposes many ways in which the multitude of traditional stitches can be used, exaggerated, and abstracted to create and enrich innovative embroideries.

It is a book for both beginners and the experienced, however, I think it offers more to those who already understand and know the feel of basic stitches and techniques and have previously encountered design and structural problems. Attractive drawings and black and white and colour photography suggest ideas and illustrate unusual designs that make the fingers itch to ply the needle.

This is the most sophisticated and stimulating book I've encountered on embroidery during the 15 years I've been interested in it. If your heart is in traditional work and you don't wish to change then let this slip by, but if you're interested in exploring design, colour and texture you won't be able to put it down. MM

MAKING YOUR OWN COSMETICS – James Sholto Douglas. RRP \$18.95. Hard cover, 215 pp, UK.

The care and protection of our skins, hair and bodies is important for our health and well-being. Nowadays it can be quite difficult to find, and expensive to buy, products which are not made from synthetic materials and chemicals. This book contains many varied recipes for cosmetics and toiletries and includes a history of beauty aids and a definition of all the different cosmetic preparations.

There are recipes for cold creams, cleansing lotions and milks, moisturising creams, face packs and masks, suntan lotions, sunburn relievers, lipsticks, mascara, shampoos, perm lotions, brilliantines, colorants and bleaches, mouthwashes, deodorants, talcum powders, depilatories, baby preparations and many more.

There is a fascinating chapter on aromatherapy, which is the use of aromatic essences, oils and plant extracts for the treatment and alleviation of various body conditions. A comprehensive section on perfumes and fragrances gives recipes for many different scents, toilet waters and solid perfumes. There is also a chapter on producing natural

oils which covers the cultivation, distillation, maceration, boiling and pressing.

Most of the ingredients recommended are natural, but the recipes still suggest the use of some artificial additives and chemicals. However, I am sure that the small quantity of these in each preparation would be much less than those in commercially manufactured products. If you use cosmetics and toiletries then this book would be an excellent investment, both from a money-saving point of view and for the degree of personal satisfaction that is to be gained from making something you would normally buy. LA

THE HERBAL MEDICINE CHEST – Nancy Evelyn. RRP \$3.95. Soft cover, 47 pp, Aust.

This simple inexpensive little book will be enthusiastically received by all those interested in natural health and old-fashioned home cures. Written by Nancy Evelyn, who has had much experience in this field, the book contains basic information on simple herbal remedies and a guide to the most essential and readily available herbs and herbal products for everyday use.

There are sections on ointments (with recipes for making your own), oils to keep on hand for emergencies, herbs for medicinal use (with recipes for teas and infusions) and tinctures and extracts (concentrations of the herb in an alcohol base). The three other essentials of natural health care are also covered – garlic oil capsules (used as an alternative to antibiotics), slippery elm powder (soothes and heals the digestive tract) and Dr Bach's Rescue Remedy (a compound of five flower essences that is used in cases of shock, injury, accident or the like).

The emphasis in this little book is not so much on making your own medicines as being aware of the available natural remedies that can be relied upon in an emergency. An invaluable book that will be used time and time again. MM

FOLK DANCES OF EUROPE – Beverley Barnes. Soft cover, 164 pp, Aust. Price is \$7.50 posted from the author, Box 542, North Adelaide 5006.

Folk dancing is a tradition that has been passed down from generation to generation and is most frequently taught from memory. Until now there has been very little information and few books available on this subject. Beverley Barnes, who has been teaching folk dancing for a number of years, has travelled across Europe collecting and recording folk dances and customs. She wrote this book as a reference for folk-dancing enthusiasts and as an aid to learners.

The book is divided into four sections – The Balkans, Asia Minor and the Middle East, Eastern Europe, and Western Europe – which helps to categorise dance traditions in their characteristic regions. Detailed instructions are given as well as a background and history for each dance and its associated culture. There are 80 dances from 18 countries set out in a simple and direct step-by-step sequence which will encourage the inexperienced.

Attractive drawings illustrate unusual musical instruments and many of the costumes worn by the dancers from Russia, Czechoslovakia, Armenia, Turkey, Romania, Croatia, Serbia, Macedonia, Bulgaria, Hungary, France, Scandinavia and many more.

This useful book will entertain and instruct all who read it and will doubtless inspire an increased following for the folk-dance movement in Australia. It might even tempt a shy dancer like me to whirl into the Lamiita, the Polomka, the Ceceno or the Kendime. LA

WOODEN PUZZLES AND GAMES – Intriguing projects you can make – Kenneth Wells. RRP \$14.95. Hard cover, 143 pp, UK.

I've always enjoyed making gifts, as much for my own pleasure and entertainment as for the fun it gives my friends and relatives. Only once did I try making wooden puzzles and they were, to put it mildly, a flop.

But now, I think my problems have been solved. Here is a practical book that shows how, with detailed advice, to successfully make wooden puzzles and games.

Book Reviews

Wooden Puzzles and Games starts with an illustrated guide to the tools the author feels necessary for the accurate work required, most of which you probably have already. This is followed by instructions for simple devices which will enable most of the 21 projects in the book to be made using hand tools only. Some of the puzzles are easier to make using power tools, but they have been chosen to make construction by hand possible if patience and care is used.

Many rare and interesting woods are suggested such as mahogany, ebony, rosewood, fiddleback sycamore, teak, walnut and satinwood. Wood finishes are also covered, with their advantages and disadvantages clearly presented and a recommendation for each project. As it is a British book the list of suppliers is useless but, as most of the projects use wood offcuts and small amounts of wood I don't think this is an important fault.

Kenneth Wells, who has had articles published in numerous craft magazines, is head of the Craft Design and Technology Department at Portsmouth school and it is obvious from the detail of his construction plans that his experience has been put to good use.

Many of the puzzles and games presented are familiar, such as Chinese chequers or solitaire, and they vary in difficulty from the perplexing six-piece Chinese puzzle to the simple delight of noughts and crosses. Each project is introduced with a description of the areas where extra care must be taken, how difficult or easy it is to construct and what makes it so enjoyable to make and use.

The diagrams and photographs which illustrate each project really help, and make it possible for someone like me, with not a great deal of woodworking experience, to attempt some of the easier projects and come up with a finished product to be proud of. The solutions to all the puzzles are also given so we can not only make them but solve them – although, of course, like the Rubik's cube, it's more fun to try first!

KR

BEAN CUISINE – Janet Horsley. RRP \$6.95. Soft cover, 89 pp, UK.

Usually when I read cookery books before going to bed I end up tossing and turning all night and dreaming of failed recipes, but when I read *Bean Cuisine* it left me inspired and confident – I woke up early the next morning and put my mung beans out to sprout.

Beans are highly nutritious, cheap, easy to store and can be used in a variety of attractive, appetising meals. Before Janet Horsley launches into her range of delicious and interesting recipes she gives a brief history of beans and explains exactly what nutritional value they have. The book includes sketches of a variety of beans with a description of their colour, which is ideal for people not familiar with cooking and buying beans.

The recipes are divided into different sections; ranging from pates, salads, soups, stove dishes, oven dishes and even desserts. They're exciting, easy to follow and excellent for vegetarians. You will feel inspired after reading this book because not only are beans economical, nutritious and tasty, but with these detailed instructions on their use you can't go wrong.

LH

SINGLE PARENTING: A Practical Resource Guide – Stephen L. Atlas. RRP \$10.75. Soft cover, 240 pp, USA.

The single-parent family can provide a complete and satisfying way of life, offering both parent and children a positive opportunity to satisfy needs in a warm, supportive and loving environment. This concept is a far cry from the media stereotype with its image of single parenting as being difficult and undesirable, and with a family life that is second-rate and isolated from meaningful relationships and support. For too long safe, conforming, 'ideal' examples have been used as the yardstick for determining success – success being defined in this book as enjoying and feeling good about self, family, relationships or even a particular situation – and as a result anything falling outside this narrow viewpoint is seen in a negative and demeaning way. This book is an attempt to correct this imbalance and as such redefines family life to include much more than just the traditional 'mum, dad and two kids.' It draws out the

many strengths in single-parent families and makes readers aware that 'single-parent families can be healthy and satisfying, and they offer unique opportunities for personal growth for each family member – provided we understand and base our efforts on the single-parent family, rather than try to make our families identical to two-parent families either through imitation or remarriage'.

Single Parenting is a practical resource guide by and for single parents dealing with both everyday and special concerns. It covers such topics as marriage into the single-parent family, seven ways your children can benefit from a single-parent family, the creative approach to single parenting, parent-child relationships and the everyday concerns of child rearing, single parent plus – you, your relationships and your children, you don't have to do it alone: resources to help you and your child, you and the non-single community, and making it as a single parent. The book also contains exhaustive lists of counselling resources, community organisations and groups and services; however, because it is an American publication such data is irrelevant to the Australian reader.

Single Parenting is written in what I would call an 'American style' and is chock-a-block with personal anecdotes and experiences; this type of approach might irritate some readers whilst others may have difficulty in identifying their own cultural and life situation with what is presented in the book. Whilst these factors, together with the irrelevant nature of the reference data, are 'minuses' for *Single Parenting*, if you are really interested in learning and changing you will not be disappointed with the rest of the material in this book. It is no longer acceptable to view a single-parent family as a broken home; rather, like any other type of family, it has its strengths and weaknesses; this book concentrates on the strengths and it is a refreshing and promising change!

MM

GARDENING FOR KIDS — Brian McKinlay. RRP \$5.95. Soft cover, 51 pp, Aust.

This publication is aimed at primary school teachers to aid them in introducing gardening to young people. Learning to garden can be fun, and this book sets out approximately forty different experiments that will teach children a number of important scientific principles. The chapters are designed to help the teachers take their pupils from simple gardening tasks through to the more complicated endeavours in the later pages.

The author suggests waste materials that make useful and novel plants containers, ideal locations for the activities, and a little special equipment that may be handy. He also tells us how to put potting mixture into a pot and where to obtain the seeds and plants. I was pleased to note that it was suggested the children gather seeds from the domestic garden themselves.

Numerous ideas are then put forward ranging from simple seed germination to terrariums, which gives the pupils enormous scope for their imaginations. They should be helped to draw conclusions from these experiments and to devise other ways of testing the basic needs of plant development.

All children should be encouraged to discover the great importance that plant life has on our environment and although this booklet was written for teachers, I feel that many parents and older children would find a copy of *Gardening for Kids* most useful on their own bookshelves.

KG

To obtain books from Grass Roots:

1. Add up cover prices of books required
2. Add freight
3. Send total with name and address to Grass Roots, PO Box 900, Shepparton 3630.

FREIGHT: The following postage and packing rates are for up to three books:

New Postage rates:

VIC/TAS	NSW/SA	QLD/NT/WA
\$2.90	\$3.90	\$4.90

All books without the publisher's address are available from:
Grass Roots, PO Box 900, Shepparton 3630.

Feedback Link-Up Feedback

Dear Folks,

We've been in our new house for some months now but have found that moving on site as opposed to moving from another town is a long drawn-out affair. We still have books in the shed and belongings in the old caravan. The study is a store-room and one other room has become one vast pile of pending ironing. However, we are happy with the open-plan lounge/kitchen. Visitors' reactions vary from open delight to a form of cringing at the open space!

The grass has bolted to seed in the recent heat and although I did try to attack it with a scythe, 5 acres is really too much to do when I work each morning and have the family to care for too. Regretfully I used precious savings to purchase a motorised scythe. I've had a few teething problems and been given the run-around by the distributors but when it goes it does the job required. I have ideas for a few simple modifications like a front fin to deflect the grass after cutting, but don't have the skills to weld and my female training away from engines has already exasperated me to distraction point.

We have plans to make a hay stack and have been reading up on the process. Somewhere we saw a plan to make a manual hay-baler. Does anyone have information on that? Just think – after two seasons' intermittent use, I'm learning how to use a pitchfork.

Would the Rogers family who telephoned and then called at our place when I was out please contact us again? We don't have your phone number or address to respond to your visit.

**Beverley Driver
'Dongadell'
Box 339
McLAREN VALE 5171.**

Dear Craftspersons,

I'm a blacksmith and woodcutter looking for a new home. I've spent the last 10 years in Tasmania, 7 years of that time in a small northern town on my own land. I wish to make my living from my craft as I gain a great deal of satisfaction from my work. Is there any community, preferably orientated towards craft, environmental and social awareness, that could use another shareholder? I'm 30, single, with enough money to start again. Ideally the situation should be close to craft markets but I'm open to any situation at present. Are there other craftspeople who may like to combine resources to purchase some land or large building in order to establish a craft orientated community, maintaining our own private working and living spaces as we desire, yet benefiting from the creative stimulation and increased economic viability of close contact with others of like mind. Are there already craft orientated communities existing? I would love to hear from anybody who can provide me with information or ideas or who is interested in starting such a community.

**Richard Watson
PO Box 128
DELORAIN 7304.**

Dear Friends,

For some long time I have been reading GR and find some of it a tremendous help and some of the letters I find rather way out – my immediate reaction is 'are they for real?' However if we are able to help each other I guess that is the whole idea motivating this family called *Grass Roots*. I would really love to hear from other people as my family have all 'flown the coop' and at times I feel as if life is just drifting by without me doing anything constructive. There must be others who feel this way also. There does not seem to be the genuine feeling for the simple things of life, but everything revolves around commercialism, discos, drugs, fast cars and wild parties. Where has our sense of values gone? I would really like to hear other people's views on the way they feel about present day living.

**Disillusioned
C/- Box 900
SHEPPARTON 3630.**

Dear Readers,

Could anyone help me with a diet for arthritis? I am a vegetarian and I am reasonably careful about what I eat for protein. I eat fish occasionally but have problems and as I am rather emotional I make excess acidity and need to know how to control this problem. Also I am so tired all the time. I would welcome any help.

**May McCount
C/- 43 Robert Street
PENRITH 2750.**

Hello Everyone,

The main reason for writing is to say how sad I felt when I read the letter from 'Anonymous' (p.96). I hope the man who swindled them can't sleep at night and has a very restless conscience. Unfortunately this type doesn't usually have a conscience. This poor girl is blaming herself for what has happened and I can imagine the torture she is going through. To see a dream come to fruition, only to have it all crumble around you must be heartbreaking and to feel that you are the cause of it all would be like salt on an open wound. We all ache for you and all the other poor people who have been taken for a ride like you have. I pray to God for you and your family to give you hope and faith again after all you've been through.

**Rita Summers
'Kersbrook'
Blackwood Farm
PIONEER 7254.**

Dear Readers,

Alan and Sandy Coppin (GR 39) want to make dandelion coffee. Well, I found it easy enough during one of my Guide bouts of 'living off the land'. I collected a packful of the plants during a country-walk and at home I cut off the roots which are like little parsnips, scrubbed them clean under the tap with a stiff brush, and dried them out in the sun. When they were dry enough to break into 2-inch pieces they were spread out on an oven tray and slowly roasted (in a little old gas stove) until they were brittle enough to snap in half with a click. Keep the oven rather cool and do them slowly turning to roast evenly. Toast them to a cheerful coffee colour – don't finish with charcoal chips. When they're cool put them through the kitchen mincer (we didn't run to grain mills in those days, but if you have one use it). It's when you start the grinding that the miracle occurs – suddenly the kitchen is filled with the aroma of fresh-ground coffee. I used 1 dsp to 1 cup, poured on boiling water and balanced a saucer on top until it infused. We didn't have percolators in our house – we had self-sufficiency, but we didn't know it!

**Robin Atherton
1 Leonard Street
BALWYN 3101.**



Dear Meg & David,

First of all, many thanks for *Grass Roots* and the opportunity to learn. My husband and I run a Saanen goat stud. We have recently been blessed by the birth of one set triplets, three sets of twins and four singles. We have a few kids (4-legged kind) that we can cull. I hope there is a reader who will be able to help me with details on how to tan goat hide, preferably without the use of chemicals.

Here is something to share. This recipe for goat cheese is scrumptious. Take 4 pints lukewarm goat's milk and 3 junket tablets which you crush and dissolve in 2 tsp water. Add the dissolved tablets to the milk, stir well and leave till cold. Tip into colander lined with mosquito netting; gather up to form curd into a ball. Let the whey drip until curd is dry. Salt and season to taste – parsley, chives etc are beaut. Keep the whey to drink as it has a very refreshing flavour.

Welcome to any born again Christians who read *Grass Roots*. If in Kempsey ring 065-654-563 and we will give you instructions as to where you can find a meal and bed for the night.

**Bess Hall
Seven Oaks
via SMITHTOWN 2440.**

Dear Readers,

I have a book people may be interested to know about. It is called *Nutritious Recipes and Meals*. Its main aim is to help you balance your diet so at mealtimes you have something from the green section, pink and yellow sections and so you have a full nutritious meal. It was originally printed during the depression to help people make the most from what they had. It is helpful for vegetarians as it has lots of meatless dishes. Most recipes use wholemeal flour and honey or raw sugar. It cost me \$5 and it has over 1290 recipes. It is available at health food stores but if you can't find it drop me a line and I might be able to get you a copy.

**Janine Amey
C/- 20 Bruce Avenue
CARINGBAH 2229.**

Feedback Link-Up Feedback

Dear GR People,

After reading letters in GR slamming the choice of previous writers not to immunise their children through the regular immunisation programme, I feel I must contribute some information: *parents, there is an alternative.*

The idea of artificially stimulating the body to produce defences against debilitating disease isn't in itself 'bad', but our modern medical practice historically has always been a bit heavy-handed in how they go about it. The 'little fever and fretfulness' after the DPT injection isn't the full extent of the child's reaction by any means. Your child may not end up in hospital with meningitis or allergic reaction, but think back on his or her health in the months following each injection – notice any more colds, earaches, unexplainable fevers or rashes, or mild and niggly 'off-colour' episodes you just can't explain? These too, are 'side effects' of their young bodies' trying to combat the sudden, massive invasion of so many threatening wogs, often several very different strains at once.

Fortunately there is an alternative that's just as effective. Over the past couple of centuries a number of medical practitioners across the world have promoted a gentler approach to medical treatment and medication. These practitioners, often trained in orthodox medicine and accredited doctors, are homoeopaths, and their oral vaccine and prophylactics, like their remedies, provide protection without the frightening after-effects we've heard so much about recently.

Homoeopathy even offers an answer for the immunisation reaction of reduced health mentioned above. So whether you've already had your kids immunised but feel their general health 'just hasn't been as good since', or you have a baby you feel needs protection against certain illnesses, contact your local homoeopath. Ask for the full story on their oral vaccines, their effectiveness, and what to do for kids already immunised in the traditional way. You'll be surprised and pleased at how much time they have to give you and your questions. They are most definitely not 'quacks' – far from it. Homoeopathy as a rigorous discipline and school of medical practice has been taught for 200 years, and believe me, *it works*. So first consider it. You have nothing to lose and everything to gain in terms of continuing good health for your kids.

Kathy Conover.

Dear People,

My husband and I are looking for a property with a 100-year lease. We would prefer a house on it and the areas in mind are the Otway Ranges, Grampians, but other areas will be considered. All letters welcome and will be answered.

**C. & I. Audas
3/26 James Street
FRANKSTON 3199.**

Dear Grass Roots,

I would like to tell you how much I enjoy your magazine – I find it has more interesting reading than any other that I have subscribed to, and there have been several. I am probably one of your more 'mature' readers (being a widow of 55) but this does not prevent me from being interested in what other, and younger, people are doing. I have only one little grizzle – as usual there seems to be a lack of input from South Australia! Doesn't anything happen in this state? I wonder, as no matter which magazine I read the same thing seems to apply.

Joan Nell.

Dear Readers,

We are a family of four (Linda 26, Tony 24, Cameron 8, and Peter 3) living on 50 acres on the outskirts of Brisbane. Although we are on land we are quite close to shops and city and there is a bus stop at our gate. We have a small house (comfortable) and also a converted bus. What we need is a nanna for our boys. We are offering our bus as accommodation in exchange for casual baby-sitting and occasional weekend house-sitting as we like to get away for a weekend's camping. Is there a lady out there who needs a family and a home? The right person must love animals and kids. We have quite a large garden and although we can't offer full board we can give fresh eggs and vegies from our garden. We aren't into religion and are both social drinkers and smokers. We would love to hear from anyone who could give our young guys the grandmother figure they need.

**Linda & Tony Walker
796 Manly Road
MANLY WEST 4179
Ph: 07-390-8772.**

Dear GR People,

We are a couple of health-minded, alternative thinking people, living between Lithgow and Bathurst. Our climate is fairly harsh, winter seeing temperatures of minus 7° overnight with very heavy frosts and occasional snow. Summer is short (about 4 months) and with extremes of 35-40°. We wonder if anyone has any tips on growing vegies in an area subject to late frosts (Nov.). We are also a little short on people to interact with on subjects such as self-sufficiency, music, tai-chi and natural health care. Also, would anyone know what would be the best time of year to transplant young fruit trees and how much the older ones can be pruned?

To Susan Mathieson (GR 39). There is land available in the Mudgee area – 20-25 acre blocks for between \$15,000 to \$20,000. We looked around the area ourselves but found that land in this price bracket was generally treeless and not very fertile. Prices may have increased recently due to the drought being well and truly broken. Winter is quite cold there and they do have some snow. The best way to find out about the area is to visit there personally as this is the only way you will be able to talk with the locals and see how well you can relate to them.

**Garry & Vickie Rowley
Old Bathurst Road
RYDALL 2790
Ph: 063-556-218.**

Dear People,

Could you please help? I've read *Grass Roots* for years and remember seeing a remedy for shrunken woollens. Neither my friends nor I have been able to track down the issue with this information. Hope you can help.

**Pauline Atkinson
1/47 Broadway
ELWOOD 3184.**

Dear Fellow Readers,

I am most anxious to purchase copies of *Grass Roots* Nos. 6, 7, or 8. Can anyone help me please?



**Moiria Condon
PO Box 406
GYMPIE 4570
Ph: 071-831-235.**

Dear Grass Roots Readers,

We have recently moved to Inverell area, Elsmore, where we have a house and two acres. We would like to meet any other GR readers in the area to exchange ideas, experiences and friendship.

**John & Elvie Purkiss
C/- Post Office
ELSMORE 2370.**

Dear GR Readers,

My husband and I recently purchased a block of land at Chinchilla and would appreciate any letters from people presently living on their blocks. It is on Weeumbilla Station on the Tara road. It will be Xmas 84 before we move permanently but we are after information as to what fruit trees and vegies grow well in this area. Also what pasture grass would be suitable as we have horses? What types of housing people are erecting is another thing we are interested in.

**Gail & David Gabbert
5 Lobelia Street
DECEPTION BAY 4508.**

Dear Readers,

I am appealing to any of you who know of successful alternative methods of teaching the intellectually handicapped or do you know of really good schools? One grandson (10½) is attending a school for intellectually handicapped though it is accepted he is not really in the right place as he is a very good reader and speller. Unfortunately it is the best available and the teachers do a wonderful job. The younger boy (7½) has been taken from the state school where he has suffered emotionally at the hands of other children and is on trial at a private Christian school. The boys suffer from a genetic muscular disease and there is no known cure – it is not muscular dystrophy. I do hope someone can help.

**Ellen Davies
44 Cater Crescent
SUSSEX INLET 2540.**

Feedback Link-Up Feedback

Dear Friends,

I'm initially just writing to introduce myself. I'm a Sagittarian, 34, a single parent with two beautiful children (Beth 9, and Matthew 6) and I am divorced. I sold my business when my wife walked out and for the past two years I have been living on the meagre allowance doled out to the likes of me by the Social Security Department. This has served to suffice up until now. I haven't been in a position to work because 12 months ago I broke my leg and due to complications (and an inept medical profession) I've been in and out of various hospitals ever since.

I am now finding I simply cannot afford to live on \$216 per fortnight and pay a mortgage of \$340 per month. What I would like to do is pool my resources with someone living in a coastal country area and rent out my house here until the market improves sufficiently to enable me to sell it. At least, in this way I can try the alternative lifestyle and learn how to live off the land until my assets can be realised, thus enabling me to buy a property of my own.

I am actively interested in numerology and I also write poetry. I am an exponent of the ancient Chinese art of Ch'i, the secrets of Oriental breathing for health and longevity. I don't smoke and I gave up drinking completely for 15 months but now I can sometimes be persuaded to share the odd bottle of wine with dinner.

My first love is for my children thus I have difficulty in trying to establish a smooth relationship with possible suitors. I cannot find a lady who can accept the fact that I have two children from a previous marriage. I haven't worked for two years and that I am, to all intents and purposes, a 'mother'. I had little or no experience in being a mother before my wife left but now I find I can cook, iron, sew and do everything around the house. Therefore I feel I would have little difficulty adopting an 'alternate' lifestyle.

After I left England I travelled overland to Australia where I worked on drilling rigs in Queensland, on the railways in Darwin and on the main roads in WA, amongst other physically demanding vocations, so I am no stranger to hard work. I would like to hear from anybody who thinks there might be a place for us in their lives, preferably someone with whom I can share my interests and my love for my children, someone who knows there is more to life than amassing material possessions.

**Geoffrey Barron
44 The Avenue
WARRIMOO 2775.**

Dear Grass Roots,

I am 16 years old and very anxious for a career working as a strapper with horses. Firstly I have to take a course for a horse licence. I wonder if anyone could give me information concerning the course and if there is any temporary work available.

**Sandra Thomas
11 McPherson Street
HORSHAM 3400.**

Dear GRs

At present we are living in a rented house in the middle of a country town. Our backyard is full of fruit trees that our two goats are craving to get their teeth into. We are desperate to find a house with land somewhere in central Victoria. We can only rent as we are both unemployed. If we do find somewhere else to live we plan to make our idle days busy by planting a good garden, getting a few more goats and some chooks. If anybody has a small property to rent or knows of someone who has, we would appreciate it if you would let us know. We have a school-age son (5).

Here is a recipe for Minted Lamb Marsala as requested by Barbara Mackenzie (GR 39). You will need 1.5 kg (3 lb) leg lamb, salt, pepper, 1 tbsp butter, 1 tbsp oil, 2 cloves garlic, ½ cup chopped mint, ¾ cup marsala, 1 tbsp flour, 1 cup water. Rub lamb well with salt and pepper. Heat butter and oil in baking dish, add crushed garlic, mint and ½ cup marsala. Put lamb in dish and baste with this liquid. Bake in moderate oven 30 min; reduce heat to slow and bake for another hour or until lamb is tender. Baste frequently during cooking. Remove lamb from dish. Strain pan juices, skim off any excess fat. Return juices to pan; blend flour with a little of the water, stir into pan juices, add remaining water and marsala. Stir till it thickens and boils.

**Brenda Tatti
Raglan Street
DAYLESFORD 3460.**

Dear Fellow Readers,

In reply to Ronnie Gus (GR 38), I wholeheartedly agree with his sentiments and have only this to add. Live all you can – it's a mistake not to. It doesn't matter so much what you do in particular so long as you have had your life. What one loses one loses – make no mistake about that. The right time to live is any time that one is still so lucky to have – so live.

Thank you GR and all you wonderful people who make my days a little brighter with each issue. Keep writing in and if anyone would like to correspond I would love to hear from you, one and all.

**Masie Taylor
C/- Grass Roots
PO Box 900
SHEPPARTON 3630.**



Dear Readers,

I am a 25-year-old male vegetarian trying to live in harmony with my own nature. I have looked into Eastern religions and philosophies but find too much emphasis placed on emotion, which goes against my basic mental programming. Lately I have turned my attention to Western (i.e. Christian) mysticism but it seems that spirituality is always cloaked in dogma. They say the answers are to be found within but evolution is such a slow process that it can be a very lonely path. I enjoy the peace associated with country living but I feel there is more stimulus available for my own growth in the city. If there is any heterosexual female reader who is inclined towards spirituality, philosophy, altruism, healthy living or musical interests (any of these will do) who would like to share with a like-minded person, I would love to hear from you.

**Alex Vafiadis
1/87 Wattletree Road
ARMADALE 3143.**

Dear People,

I am writing to ask if any readers may have a 1-2 acre property with a livable shack on it in the Gippsland or East Gippsland area, either for sale or lease. We don't have much money but someone may have what we need at a price we can afford. Water and a rough shelter are all we need.

**John Baird
6 Bellview Crt
SOUTH SPRINGVALE 3172.**

Dear Grass Roots Readers,

We are building a small log cabin on our land for storing bits and pieces. Can anybody tell us the best thing to use to seal the spaces between the logs? Any advice would be appreciated.

**Kay Lennon
C/- Post Office
MT CROSBY 4305.**

Dear Fellow Readers,

I enjoy this magazine very much. I now have an Anglo Nubian/Saanen (Heidi) who gives me a gallon of milk daily. When she was in full production she gave over two gallons daily. Help wanted! How do you process carob pods? There are some trees in town and they are loaded with pods every year.

**Goat Lady
COBAR 2835.**

Dear Folk,

We are really anxious to get our own acreage but our main problem is finding land on the coast at a reasonable price. We realise the prices are high where we want it. We love fishing and water sports so we are hoping to find something on a river with an outlet to the ocean as well as acreage to develop and treasure forever. This will be a new life and experience for us but we have been studying every book we could find for the last two years and now we want to put it into practice. We would love to hear from anyone willing to give advice. Our interests are pottery, herbs, and fishing.

**Cas
PO Box 482
NOWRA 2541.**

Feedback Link-Up Feedback

Dear Grass Roots,

Having passed through Innisfail Q., and stopped to give Lori and Ron (GR 39, p.95) a speedy ear bashing, I suggest that Warren and Judy Hutchings (GR 36 and 39 p. 8) communicate with Lori and Ron and they might learn the reason for the little response to their ad/letter. The cold and calculating 1984 rules and selfish requests would hardly be leaving the rat race. In contrast Lori and Ron drove me out to see their land. They knew I liked it as I stared into the lush tropical jungle. Their statement amazed me – find a spot and build a place with us. Their warmth and generosity overwhelms me and I hope I can be worthy of their friendship.

I'm having difficulty getting my camel/cart situation together and thanks to the many people for their ideas. I apologise to the gentleman about his suggestion as to what I should do with carts on public roads. Your idea was not practical and furthermore, physically impossible.

Meg, David and all the staff, you do a wonderful job and I thank you for the many hours of enjoyment.

**Les Loll
C/- GPO
MACKAY 4740.**

Dear People,

Hello and howdy! How're ya chooks!

Karen, our two daughters and myself are planning a land-hunting expedition by camper late February 84. We will start with the southern regions of WA and continue our trip through SA, Vic, NSW and Qld until we find our dream acres. If there are kind persons who can spare time to drop us a line (all mail will be forwarded on to us) about land with a house priced up to \$35,000, we would greatly appreciate it. Also if you don't mind having 'drop-outs' drop in for a cuppa and a chat we would enjoy doing so.

Karen and I have been reading a book called *Two Acre Eden* by Gene Logsdon which we scored from our library (wonderful places libraries). Although much of the information might not be suitable for Oz we found that we have gained hope and the courage to let go of our city life and finally go to the country that has been calling us for so long.

**Francis, Karen, Jasmine & Lauren Flannery
148 Sanford Street
GERALDTON 6530.**

Dear Meg & David,

Congratulations on 10 years of production, three of which I've been a reader. Keep up the good work.

We've just moved out of town onto a 30-acre farm with a dilapidated house. We are very pleased with ourselves despite much work ahead. Could I make a request for information from readers who may have treatments, preventatives or cures for Queensland itch in horses. Rugging is useless. Our horse loathes them and managed to rip the last one to bits.

**Margaret Alexander
225 River Street
MACLEAN 2463.**

Dear Fellow Readers,

We will be moving to Glenburn around January/February and would be delighted to hear from other GR readers in that area. We have acquired our 'dream land' at last. We are Tiber (36), Vivian (36), Ildiko (5) and Luke (3). The house we'll be living in has a wood stove so I would appreciate hearing from other mums who use wood stoves.

**Vivian
C/- Post Office
LILYDALE 3140.**

Dear GR Readers,

We are a family of four (30, 27 and two children aged three and six months). We love children, animals and natural life. We are interested in self-sufficiency and are looking for farmland either in Tasmania, Victoria or Qld. My husband is a very good handyman and I am interested in all crafts, cooking and baking. We are looking for people with similar interests and ideas. Maybe there are some down-to-earth people, who want to join us and build up a co-operative community. If there is anyone out there please write.

**Heike Kerber
12 Baltimore Road
MORTDALE HEIGHTS 2223.**

Dear GR Readers,

I'm 25, single, and live in suburban Sydney. At the moment I'm in the process of selling my block of land (50 acres at Leyburn, 70 km from Toowoomba) and I am hoping to buy another, maybe smaller, in or around Murpheys Creek near Toowoomba. I would be very interested to hear from anyone living in this area regarding availability and approximate prices of land.

One question I would like to ask readers concerns grain-fed beef. At what age should calves be started on the special diet and what proportion of grain to natural pasture should be fed? Also at what age should the calf be butchered to obtain maximum yield from the carcass?

One final comment before signing off regarding information sought by readers. I feel that *Grass Roots* should publish a list of government departments or individuals willing to answer questions on specific subjects – preferably people either involved with or working in these fields e.g. vets, agronomists, etc. Maybe even someone on staff specifically to answer these questions. This could develop into a regular question and answer column included in the magazine.

Chow for now.

**Colin Stace
11 Napier Street
CANTERBURY 2193.**

Your suggestion is a good one Colin and pinpoints the very reason Feedback exists — to provide alternative information to that already available from government departments. Our readers offer a wealth of knowledge and experience, much greater than we could supply with a researcher, though where it is possible we try and provide prompt personal replies.

Dear GR

We certainly enjoy reading your magazine though I guess we would like more on self-sufficiency and growing tropical fruits in the N-W, a much harsher climate than that of coastal northern Queensland. One subject we hope someone, someday will write about is the control of termites – the big fat ones that gobble up live trees – without resort to chemical warfare. Still, if we don't contribute our own experiences I guess we can't complain if someone else doesn't come up with the good oil.

John & Gwen Bucknall.

Dear People,

I have quite a lot of containers of broad beans in the freezer. My problem is how to cook them. Apart from the usual boil, dab of butter, salt and pepper, I'm stuck. There doesn't seem to be any recipes for broad beans in the cook books. It's such a good vegetable and I'd like some more ideas.

**Margaret Wake
'Cooramilla'
King George Avenue
TAMWORTH 2340.**

Dear People,

I am writing regarding the mosquito problem on my property which is surrounded by marshlands. I wonder if you have any suggestions as to how we can kill the larvae? Is there something we can eat to help protect ourselves or is there some form of repellent?

**Gary Chapman
26 Beach Street
TUNCURRY 2428.**

There are suggestions for mosquito control in GR 32, p. 7 and GR 34, p. 7. There is also news of a biological mosquito control in Information Available GR 40.

Meg.

Dear Grass Roots,

I was given your magazine recently by a friend and found it very interesting. We like the idea of self-sufficiency but unfortunately are tied to semi-suburban life through lack of money. Luckily where we live is semi-rural and we try to grow as much of our own food as possible plus we hope to keep a few chooks.

I would appreciate any hints on how to get rid of snails and ants organically so that there is no harm done to our very curious dog and cats.

**Fiona Stewart
12 Bathurst Ave
MOANA SOUTH 5169.**

Feedback Link-Up Feedback

Dear GR,

In reply to I.E. Vass, Strathpine, (GR 38). As I do not have a recipe for mulberry wine I will pass on one for mulberry liqueur. (Strawberries may be used also.) Quarter fill a plastic 2-gallon bucket with the fruit then add enough sugar to half fill the bucket. Cover and allow to ferment for eight weeks. Strain and press through a sieve, then repeat using cheesecloth or similar material. Half fill prepared bottles then top up according to taste with vodka or brandy. This is now ready to drink whenever desired.

To Alan and Sandy Coppin, Palmwoods, GR 39. I am delighted to hear of people appreciating the benefits of dandelion coffee. Mother nature has been very kind supplying us with such a wonderful herb. It is beneficial to the liver, a laxative, diuretic, tonic and depurative. It contains 7000 units of vitamin A per ounce of plant. The leaves may also be added to salads. To make dandelion coffee collect at least 100 mature plants (ones that have flowered) using the roots only. Scrub clean and let dry in a dark place. When dry chop into small pieces and roast in a moderate oven for 6 hours, stirring occasionally. Then grind and use as ordinary coffee. For anyone who may be interested I have recipes for dandelion wine, elderberry wine, elderflower wine and rhubarb wine.

A helpful hint for bread makers – you can always have a fresh baked loaf on hand for any occasion by simply freezing the dough before it is allowed to rise the second time. Wrap in a teatowel, place in a plastic bag and freeze. Leave yourself approx. 5 hours from freezer to table.

**Sue Quinlan
C/- Post Office
JIMBOONA 4280.**



Dear GR Readers,

My wife and I have a dream to buy some land and build a home and have a simple lifestyle with a degree of self-sufficiency. But how to achieve this? We seem to be caught between the realities of living in the 1980s and the need and aspiration to achieve something better in life, but want to be at peace and in harmony with all things – not to just cope and survive from one day to the next. We have a reasonable amount of cash put aside but we would still require a loan. To repay the loan we require an income. Reasonably-priced land tends to be isolated and these areas have a distinct lack of employment opportunities. Ideally some sort of home-based income would solve that problem but I see that as more of a long-term endeavor which is built up over time. So we are looking for land (5-40 acres) in an area not too isolated and with some employment prospects. I am 27 and a qualified gardener/nurseryman and my wife is 26 and a musician. Maybe there is someone in the same situation with whom we could possibly put our heads together and hopefully find an answer.

**Mike Donovan
PO Box 81
BELGRAVE 3160.**

Dear GR People,

For many years I have considered GR the best value magazine available in Australia. Writing appreciation is something I have neglected due to a busy lifestyle which has seen me rearing two daughters alone for the past 13 years. Now they are 17 and 24 and I find, despite my continuing near self-sufficiency, I would appreciate corresponding with a lone middle-aged man into what is known as the Aussie battling instinct. I am an organic gardener, make all my clothes, jams, preserves, bread and we are mostly vegetarian. I do not drink or gamble and would welcome letters from kindred souls.

Can anyone help me to deal naturally with a severe rash our dog has which the vet is unable to identify? Regarding comfrey – I have found it marvellous. It turned me from a pain-racked severely arthritic person and put me back into self-sufficiency.

I find seaweed is a fantastic fertiliser. I gather it from our nearby beach, hose it, dig it in, or fill a hessian bag with seaweed and place it in a large container of water. This liquid I dilute 1:3 parts of water. I compost it or just lay it around whatever crop needs encouragement.

**Helen
1 Neptune Street
MORNINGTON 3931.**

Dear Grass Roots Readers,

Re Jon Sturm's letter (GR 38, p. 89) about Amway LOC (Liquid Organic Cleaner). I have used LOC for several years – it can be used for cleaning almost everything. I have used it to wash myself, clothes, dishes, animals (dogs and horses), sink, bath and for spraying my ironing to make it easier. It is also 100% biodegradable. It can be diluted up to seven times as it is so concentrated. I have an Amway agent who sends my LOC to me by mail order at the Amway price plus postage. I asked her if she would send LOC to anywhere in Australia. She is prepared to do so – all she asks is that you drop her a note and enclose a 30¢ stamp to help cover the postage of the Amway catalogue and price list. Her name and address is Wendy Pittard, 304 Drummond Street, South Ballarat 3350. I hope this helps the people who have had trouble finding an Amway agent.

**Robyn Wagstaff
RMB 100
TALBOT 3371.**

Dear GR People,

I am an avid GR reader and am moving towards self-sufficiency but I intend to also take along whatever advantages I can from my present lifestyle. Like many others I have a million questions to be answered but here are two for this time. During 1940 or maybe a little earlier we had a man come around selling clothes props, etc. He also sold a liquid eucalyptus soap which looked like a light engine oil – it was good for washing just about anything from woollens to hair. If anyone can remember this soap and the recipe would they please send it to me. I do not want the recipe for cakes of soap – only the liquid and the method of distilling and type of leaves. The other thing I would appreciate is the name of books and their authors who have written about edible plants and roots in the Australian bush. I will answer all helpful letters.

**Richard Goeldner
PO Box 1089
GOSFORD SOUTH 2250.**

Dear People,

We have 41 acres of nothing – I mean no trees, no water and no electricity. We've planted about 40 trees so far but they're only babies as yet. We are treating them with TLC – mulching, watering, protecting them and even talking to them. No we're not crazy – they're alive as we are – we're looking after them as they will care for us.

We received the approval today to build our mudbrick house – there wasn't any hassle. We have met some kind and wonderful people here at Toogoolawah and back in Brisbane. We were banging our heads against a brick wall a few weeks ago with time running out and nowhere to put our furniture, nowhere to live and no roof over our heads. Then two weeks ago it all came together. We met a couple who said they had vacant space to store our belongings and a friend sold us his caravan and new annexe plus gave us an old station wagon which goes well as a workhorse. So finally everything clicked into place and here we are and loving it. It's a bit rough in some people's opinion – they are amazed that we have no electricity but that's the way we want it to be. We would love to meet people in our area or close by who are building in mudbrick or who have done so. You are more than welcome if you would like to come for a chat.

**John & Jenny Dreverman
Lot 4 Mt Beppo Road
TOOGOOLAWAH 4313.**

Dear Friends,

One of the things I've inherited on my property, along with beautiful vibrations of love and peace, is a porta gas-fired kiln. I know nothing about pottery and am afraid I will not be able to learn as one look at any type of water and the skin on my hands dries up. Still, I would like any information on the workings of my kiln so that I can operate it and let others gain benefit from it. I would also like to thank Ishbel, the clairvoyant, who told me, when I asked her where I was going to live, to seek out a place with a willow tree where there was a woman doing pottery and where I would sell craft on the weekends and I would be very happy. Seek and ye shall find. Within eight days I had found my pottery, craft and willow-tree cottage plus stone hand-made studio! I am still pinching myself.

**Trudy Oldaker
PO Box 45
LILYDALE 3140.**

Feedback Link-Up Feedback

Dear GR,

Here are a few replies to letters in GR 39. Barbara Mackenzie – there is a satisfactory substitute for commercially available sheep dip. I have been using pyrethrum on my sheep for some years. I was once given a few extremely lousy sheep to mind – they had about 4 inches of wool on them. We sprayed with pyrethrum, the lice disappeared and our own sheep were not affected. I know pyrethrum has no residual effect, therefore cannot prevent fly-strike, but the most important weapon against this is to keep your sheep well crutched and shear at the most strategic time. You may get the odd case of body strike but I feel the dangers of using the alternative potent chemicals outweigh the benefits. We often don't discover their hazards for many years after they have come onto the market. Many are proven carcinogens and others implicated in causing birth defects, allergies, hyperactivity etc. I did 3 years of a degree in agriculture and used to advise their use until I saw the light. I don't know of an alternative to commercial drench but I'm sure there is one.

To Colette Audas – I agree that a nuclear attack is inevitable, but I think you are naive to think you could escape its effects. Should you find a place far enough away from a nuclear prime target you would soon be invaded by those who had suffered from the effects of the bomb, but had been able to escape from its immediate devastation. These people would be suffering from varying degrees of radiation sickness, seeking help, shelter and food from you (and very likely taking it by force). The atmosphere, water supplies and food would be contaminated by radiation. I personally would rather be hit fair and square by the bombs than have to exist in the world that would be left. If you want to do something towards avoiding this most likely situation, you should join People For Nuclear Disarmament, PO Box 132, Carlton South 3053.

To Cheryl Sinclair – I investigated ways of de-husking sunflower seeds and even the Department of Agriculture had no idea. I believe there is a commercial machine (costing heaps), but from a member of the Henry Doubleday Research Association I was told that an old-style coffee grinder (preferably hand operated) would do the trick. I haven't tried it as I don't have such a machine. The other alternative is a cockatoo but they usually eat the seeds as well!

Regarding Mark Tedeschi's article on fire protection for your house. The ideas are good but don't you think plastic soaker hoses would soon melt in a fire? We have installed a similar system for our house but used galvanised pipe. We tapped off the mains pipe running beside the house and ran a pipe along the ridge of the roof which has nozzles at various points spraying in all directions. It's very simple and should be effective. We live close to Cockatoo and were pretty scared on Ash Wednesday. If anyone is interested in details they are welcome to contact us.

**Jill & Richard Whitford
Macclesfield Road
AVONSLEIGH 3782.**

Dear Readers,

I am a newcomer to this magazine but think it's great. I'm 20 and will be travelling around Australia in 1984. Therefore I would love to hear from anybody who is living close to nature and self-sufficiency, or building themselves a simple dwelling. Being a carpenter I may even be able to exchange some work or advice for free board during my travels.

**Chris Muller
202 Canterbury Road
HEATHMONT 3135.**

Dear Grass Roots People,

We are planning to travel along the coast from Victoria to Queensland during 1984, hopefully camping most of the way. We would be really pleased to hear from people who could advise us on the best camping places, preferably not too commercial, or from people who would not mind a visit from us during our trip. We have two children (3, 1) who will be travelling with us. We are living on a quarter acre lot and not as 'grass rootsy' as some, but we do have our chooks, vegie patch and herb garden. If anyone feels we'd be compatible enough for a visit we'd love to hear from you. Would anyone be willing to share their recipes for using herbs medicinally for everyday common ills? I have recently become interested in this area and have purchased a couple of books but would love to hear from anyone who practises their uses.

**Julie Davey
72 Anzac Road
TRAFALGAR 3824.**

Dear GR Friends,

We have received some lovely letters so far, in reply to our letter in GR 39 – we've made new friends and renewed an old acquaintance. Congratulations to Barbara Mackenzie for your article on *Going it Alone*, especially the part about money. It's all right if you don't mind living on someone else's land and if you don't mind living off the government (I'm not criticising those who do), but what happens when the money runs out? If you want to own land and the equipment to work it you need money.

We welcome advice from beekeepers as we have a few hives and are trying to build up the numbers as much as finances will allow. I've been collecting swarms in the past few weeks while Alan has been at work. I never cease to be amazed at these little creatures. Can anyone please tell me why some swarms will go into a hive in a very orderly fashion and stay quite happily, while others make an awful fuss and take off again, either immediately or the next day?

**Alan & Val Broxson
PO Box 838
GOSFORD 2250.**

Dear Grass Roots,

Like numerous other people we are presently exploring this vast land. During a stay in Pt Lincoln SA, we noticed an item in Land Link (April 83) for persons to caretake a small farmlet owned by the Edgar family at Yarloop WA. As we would be in that 'neck of the woods' at that particular time of the year, we replied to the ad. Some months later we took over the reins while the Edgars ventured off on their own epic journey up north for 2 months. I don't know what their thoughts were when they headed off leaving two 'Sydneyites' to look after their domain but we were determined to cope with any problems with as much zeal as any 'new farmer'. We were immediately accepted by their own friends who helped sort out any queries and much of our ignorance! Even farmer Moore seemed to approve of us which made our stay all the more enjoyable. Needless to say, we experienced aspects of living that just can't be achieved in the city. We have acquired a new respect for bees, which we never had before. There were a few deaths and births in our adopted family of animals which compensated each other and when the Edgars returned everything was as they'd left it.

We would like to thank GR for its existence and involvement in our time on the farm. Had we not read the request and had there not been a GR who knows where our travels would have led us?

**Barry & Liz
Gwelup 6021.**

Dear Meg & David,

Keep up the good work with GR. My sister who lives in Victoria sent us a year's subscription. If nothing else I hope it will show local folk, both now and in years to come, that things like self-sufficiency, mudbricks etc. are not second-rate philosophies and goods hived off onto developing countries, but that even those who have made it, in terms of development, still recognise the usefulness and worth of these attitudes and materials.

**David Ward
Friends' Rural Service Centre
PO Box 708
BULAWAYO.**

Dear Friends,

We are interested in building a log cabin on land at Millmerran, Q. This land is virgin bush so we have ample timber to build our dream. We will use only timber which has to be cleared for pasture, garden etc. If any readers have built their own log cabin we would be pleased if you would help us with any information. Also we don't know anyone in the area so if any GRs read this please contact us. By the way, if anyone wants to know of some cheap land we would be only too pleased to help you. The lots are from 20 to 25 acres. I'm hoping to see more GRs in the area.

Here's a recipe for apple sauce nut bread. You need 2 cups flour, ¼ cup sugar, 2 tsp baking powder, 1 tsp salt, ½ tsp baking soda, 1 cup nuts, 1 egg, 1 cup apple sauce, 2 tsp melted butter or shortening, ½ tsp cinnamon. Combine all the ingredients in a bowl and stir till blended. Pour into a greased loaf pan (9 x 5 x 3). Bake at 350°F for 45-50 minutes. You may use mashed paw paw in place of the apple sauce.

**Donna Haurat & David Evans
44 Frederick Street
NEWTOWN 4305.**

Feedback Link-Up Feedback

Dear GR Readers,

Sharon Donovan's letters recalled memories about some orthodox religious clan in Holland. I am German-born but my mother is Dutch and I spent some years in that country. It was during my stay that the Staphorst affair made headlines. Staphorst is the Dutch Venice – nearly all transport is (or was) by water using boats much like Venice. The community was strictly opposed to many things the surrounding population believed in including immunisations. You've guessed it – polio struck and 14 or more children were paralysed for the rest of their lives. It should be a lesson to most of us – we foster too many unproven opinions.

Take our vegetarians who believe their beliefs are the alpha and omega. Please remember the Eskimos have lived for thousands of years almost exclusively on fish and meat and they have been healthier than most of us. Until of course the white man came along with his booze, synthetic food and doubtful philosophies. The only vegetation eaten was algae, lichens and such like, taken during the short summer months.

It is only recently that it is realised that something more than just diet is necessary for good health. Your glands, for instance, need enzymes, mostly found only in raw foods. But full utilisation can be achieved only in a fit body and mind. You need regular exercise several times a week. If you are not fit start with walking, or start a weight-training programme. You will look and feel better and also think clearer. Remember the gold-winning East German team that explored all these muscle-bound theories. You don't have to look like a sumo wrestler – that depends on you. A happy balance should be your goal.

Richard Munro
2/182 Torquay Terrace
SCARNESS 4656.

Dear Grass Roots Readers,

I have to move to the Lismore area of NSW by February so that I can enroll in one of the rural studies courses at the tech college. I am interested in alternative lifestyles and eventually homesteading using natural methods of food production, building etc. The course is full-time and I will be living on a student allowance (about the same as the dole) and will need to supplement this with what I can grow in the vegetable patch and perhaps find some part-time work. If you have room for an easy-going 26-year-old, who will of course share the rent and pay for food and power, or if you can offer temporary accommodation while I look around for a permanent place, then could you contact me as soon as possible?

Bruce Vesperman
259 Sylvania Road
GYMEA 2227
Ph: 02-524-2470.

Dear Readers,

I have a problem with my aching legs caused from standing up too much mostly on concrete. I am in my early 20s and have had this problem for about five years. Am I bound for the dreaded varicose veins? My job is wonderful apart from my aching legs and I don't want to leave for another three years till I complete my studying. I exercise daily, walk, do yoga, but find all the time that my legs throb. Please can anyone help?

Suzanne Walton
C/- 21 Acacia Street
COLLAROY PLATEAU 2098
Ph: 02-985-955.

Dear Readers,

I am like a lot of other readers of this magazine who, after being divorced and trying to survive in the rat race with three sons, found I had to get out. Now 18 months after the big move I have found out that life can be great. I bought 130 acres of nothing and started out. Now with a lot of help from my children and a couple of local people I have met, we have a roof over our heads. I make money from eggs the fowls lay and we are just about self-sufficient as far as meat and vegetables are concerned. I have learned to trap rabbits and kill my own meat (not bad for a city girl). Now I would like to hear from anyone trying to do the same – it's not easy but I have found it worth-while. So ladies, give it a go – the rat race can't compare with watching the sun go down on your own little bit of paradise.

Brenda Buttsworth
'Kintani'
MERRIWA 2329.

Dear People,

I am hoping that some GR readers may be able to help me out – I am planning a horse and cart trip next year – firstly around NSW, Vic, with sights set on eventually travelling to Darwin (home base presently Brisbane). At this stage I am trying to gather as much information as possible. Recently I bought a light buck-board but am planning to use something a little bigger for the trip. I am particularly interested to hear from anybody who has done travelling of this style in relation to design of wagon or cart and practical problems and solutions. At this stage we are thinking two people, two horses and a light trail bike with a harness set-up where we can use both horses in harness (single file) when extra pull is needed. We have both had considerable experience with horses and the main problem we're having is getting hold of a suitable light cart with rubber car-type wheels.

Heather
C/- 75 Nelson Street
CORINDA 4075.

Dear GR Readers,

The subject of immunisation received considerable attention in the letters published and I wonder if everyone stressing so strongly its benefits has studied the arguments against it. I think the Paavo Airola in *Every Woman's Book* shows convincingly that there are significant dangers involved and that the present practice of vaccinating very young children, usage of combined vaccines and vaccinating against diseases which are not life threatening should be reviewed. The same matter is discussed from the point of view of Rudolf Steiner's Antroposophy (Spiritual Science) in the book *Conception, Birth and Early Childhood* by Norbert Glas, M.D. (Antroposophic Press, New York).

Regarding extreme sensitivity to chemicals (M. King, *Serpent in Paradise*, GR 39) as well as various allergies, a homeopathic treatment would be worth trying.

Ron Hasan
PO Box 60
ST LUCIA 4067.

Dear Grass Roots People,

I have recently discovered *Grass Roots* magazine. I found most things very interesting. As I hope to make some sheds with mudbricks I am rather worried about how they stand up to white ants. These little devils are *very* bad up here and as mud is their natural diet how do I stop them?



M.E. Bryant
Amravale Station
PO Box 199
CHARTERS TOWERS 4820.

Dear Friends,

We have just parted with our two most loved and precious possessions – our two boxer dogs. We bought 6½ acres on the NSW south coast 2½ years ago at Cambewarra and moved all our worldly goods. The first summer that we came here we had trouble with the dogs scratching. We put this down to fleas and ticks so we regularly bathed them and kept their beds clean. Next summer was worse. They broke out into sores from the scratching, so off to the vet. He told us that it was an eczema/allergy to kikuyu grass. Our 6½ acres is all kikuyu. So home we came with pills, potions and lotions to try to cure them. We tried everything from A to Z and more – change of diet, change of beds, stopping them from lying on the grass, but nothing worked. They were miserable and we were too, seeing them that way. We decided to place an ad in GR 39 Classifieds to give them a new home away from the kikuyu grass. We decided on the first lady who called – Mrs Luke from Cockatoo in Victoria. She has 23 acres and *no* kikuyu grass. The last we heard they were settling in well. It was the hardest thing we ever had to do and we miss them terribly. Thank you to Mrs Luke and all the other people who know what wonderful and affectionate dogs they are. We had no idea how widely read GR is. We had phone calls from Victoria up to Cape York Peninsular. Great mag and great people.

John & Jenny Robertson
'Karabil'
Tannery Road
CAMBEWARRA 2540.

Feedback Link-Up Feedback

Dear Readers,

We are offering a couple or family who are without land and not much money, the opportunity to share-farm our property and work up a gardening venture to a going concern. The successful applicant will take over the running of the venture in our absence after a probationary period to see if suitable. The venture is a viable concern with 15 acres of good soil and water in abundance with a creek and bore; electricity, phone, pressured water, school bus at front gate; 10 miles to town; irrigation licence.

The work will vary from cultivation propagation (jiffy pots) and weeding, chipping. Watering is simply turning on a tap and using a gauge. The work is not hard but it is constant – early rising, work till 10 am then start again at 4 pm till dark. We require an honest reliable, clean couple able to get by in any situation, have commonsense, and be able to cope with the usual demands of the bush. Any other attributes that would be a bonus are an ability to cook on an open BBQ, welding, plumbing, tractor driving, mechanic – always things to repair, fencing and any other farm skills. Accommodation would be a choice between a caravan in the shade by the creek, building a decent hut or leasing the whole place for yourselves. The area is 10 miles (17 km) from Narrabri, a major inland town of 9000 people.

I am a railway engine driver with shift work that gives me plenty of time off, but it's still not enough. The successful applicant will fill this need and share the profits – there's great potential. Anyone who wishes to just sit under a tree and wait till it happens need not apply.

We live in a converted railway carriage in first-class condition. We are not into self-sufficiency as such but can do without much of the modern garbage that is thrust under our noses. Non-smokers preferred but we do take a light ale now and again. We are very modest with a sense of humour, non-religious and non-political. No drugs of any kind allowed. Only genuine people interested in growing vegetables need apply. It's a good opportunity for someone to learn the ropes without the outlay of capital. Anyone passing through Narrabri, give us a ring, maybe stay a while. There is one stipulation – one hour's work gives you 24 hours stay.

**Col & Jan Stratham
Nagundi
Eulah Creek
via NARRABRI 2390
Ph: 067-935-218.**

Dear People,

We are looking for someone kind who would give our sheep, 'Lambie', a natural life-long home. She's white, about 1½ years old and, though not exactly tame, she will come up and eat out of your hand. She is a pet we can no longer keep because our suburban neighbours have made complaints and devious threats which have made me fear for her well-being. One morning we found her abandoned in our horse paddock and as dogs are a problem in our area we had no choice but to bring her home. We've had her all that time except for a two-month period when a peaceful neighbour borrowed her to mow down her wild backyard. It now looks like a bowling green. Lambie became an instant buddy with the lady's old English sheep dog – they even slept together. We have not saved her to hang on someone's spit so sheep-eaters need not enquire.

**The Ryans
1 Nowra Court
NORLANE 3214
Ph: 052-785-704.**

Dear Grass Rooters,

We have lived on our beautiful, semi-isolated 50 acres for nearly 2 years. We've decided what we need to make things operate more efficiently is another person. Ideally a young lady 17-25, who would like to help with child-minding, gardening, occasional cooking and whatever other chores around the place that she liked. We (Paul 23, Wendy 21, Kate 16 mths and ? due June) have an extensive young orchard, garden, chooks, calf, farm dogs (no more preferred) and more livestock planned as fencing happens. There are some good spots for a second dwelling, should things work out that way. Contribution to bought food would be all that would be required. If this sounds like you, please write – all letters gladly answered.

**Paul, Wendy & Kate
C/- Post Office
WYNDHAM 2550.**

Dear GR Readers,

My name is Graham. I'm 30 and have been managing a farm of 20 acres for some time now and I love it. Before coming to this beautiful place I worked in a factory for 5½ years. When I left there I was unemployed for 9 months trying hard to get a job outdoors. But I had no luck because I did not have experience. I used to say how do you get experience when you are not given a chance. Then, unexpectedly, I received a letter from the estate agent where I paid my rent to say that the landlord had decided to sell the house that I had rented for 5½ years. It felt like everything was caving in. Then I bought the Weekly Times, saw a job advertised, applied for it and got it. My boss put up all the capital to start off my organic farm. I've built a hothouse with raised beds, loaded them with manures and topped them off with sterilised sandy loam. I then bought 25,000 worms to do their job in the manure boxes. I made a tumble compost bin – got the idea from GR. I ran an electric hot-water system through the sprinklers I have in the hothouse and made propagating beds to start seedlings off. There is a 2 B/R cottage that goes with the job – wall-to-wall carpets, potbelly stove, new electric oven. It's great, my prayers have been answered. What an opportunity – lucky me. If anybody would like to know more please write.

**Graham Somers
C/- Kara-Gola
SEVILLE 3139.**

Dear People,

It seems the time has come for Carla and Neal to move on in search of harmonious living in the country. We are presently residing and working on a farm where a great deal of poisons are being used. We are fed up with the harm it is doing to both the environment and the people who live here. In May we plan to pack up our van and begin to look for a new place to call 'home'. We are both hard-working people with farm experience and a desire to live a very basic lifestyle without greatly disturbing the natural forces around us. The desire to own land or home is not a goal, even if we were financially capable of doing so, which we are not. We have both had some work experience in education in addition to working on a farm. Our ultimate destination is unknown so we would greatly appreciate any assistance GR readers might be able to provide.

**Neal & Carla
CHESHUNT 3678.**



Dear Fellow Readers,

We have recently moved to the Sunshine Coast area (Mapleton) and are settling onto our 100 acres, our main interests being permaculture, sub-tropical fruit growing, and leaving the city behind us. We have surplus milk every day and I make cottage cheese (for chooks), yoghurt, and I'm about to tackle hard cheese (from an issue of GR). I wonder if readers have a recipe for icecream using milk and cream – most recipes seem to have condensed or evaporated milk. I am still fighting with my combustion stove and have trouble with bread making. If I put it on a high shelf I burn the top and if I move it to a lower shelf the bottoms aren't cooked. Can someone help?

**Merrill Walters
MS 956
NAMBOUR 4560.**

Greetings to Grass Roots Lovers,

My interests include reading (especially New Age philosophies and psychology), yoga, jogging, t'ai chi, therapeutic massage, intelligent conversation (hard to come by sometimes), painting (oil, water colour) pottery, and of course, spending as much time as possible with my daughter, Melodie. Oh, I also meditate. I am eager to hear from New Age people living off the land and single mums making it on their own. Can anyone tell me where I can get some soyadophilus for making yoghurt from soy milk? I would also like more information on the pros and cons of child vaccination.

**Candice Wight
C/- Post Office
DALRYMPLE HEIGHTS 4741.**

gumnut gossip

Meg Miller

I find it difficult to believe that two months have passed already — it seems no time at all since I last sat down to write Gumnut Gossip. The staff too have been muttering 'don't know where the time's gone' and friends have almost given up on us. 'What, you can't come? You're doing another? But you've just finished one . . .' All the pleasant interruptions and socialising over Christmas and New Year must have left us with a distorted view of the passing days.

Every now and then we receive letters from readers suggesting GR become a monthly publication. Well, if there's one thing guaranteed to send us into hysterics it's the thought of working to a monthly deadline. Bi-monthly we can *just* meet. A lot of work goes into producing a magazine, and the pre-production jobs we each do are all intricately dependent upon each other, culminating finally in the completed paste-up. Specific articles are sought out, or would-be writers encouraged and directed as to content and style, regular contributors are contacted, and photos and illustrations are requested. Books are looked over for relevance, their availability checked and reviews written. The large collection of newsletters and magazines we receive are perused for books, articles and interesting activities, and the suitable ones followed up for inclusion in Information Available. While that is going on the articles are being edited and any additional information sought. Then they are typeset, proofread, corrected, proofread again and any final corrections set. Headlines are done in Letraset, drawings reduced or retouched, photos bromided and then the lot is pasted up.

Sections like Feedback and the Classifieds are the most time consuming — content often has to be checked because of misspelling or ambiguous writing, postcodes looked up and added in and, from time to time, letters edited because of grammatical idiosyncrasies or sheer lack of space. Display ads are recorded, copy chased up, poor-quality artwork returned and advertisers begged to 'have it here on time please'.

Each of us also has regular work to attend to — accounts, orders recorded and completed, complaints followed up, urgent enquiries researched, and letters written for 101 reasons to our many readers. Phew! As well as that we have to fit in work for the book-publishing side of the business. So, if we don't seem too enthusiastic about your brilliant new idea you'll know why, similarly if your order is delayed or our response to an enquiry is a little late getting there, please be patient.

In the publishing area there are two books coming up the straits — *Rock Solid*, mentioned in the column in December, and a revised version of *The Vegie Gardener's Companion*, which has been updated by David Stephen, renowned for his organic gardening, writing, and yearly calendar. This will be

ready for the Organic festival in Tasmania in March. *Rock Solid* describes how Jim and Anita Maxlow built their stone house. Jim is no stranger to GR readers either, having had a cross section of his articles published over the years. We hope to have *Rock Solid* available by April.

In between producing the magazine and coordinating books we manage a little fun and one of the nicest things we did together last year was to attend a *Grass Roots* wedding. Chris, who worked for us in 1982 helping with the poultry and outside jobs married Fred, a nice fellow she met via the Feedback pages of GR. They had both had a letter published, looking for a friend with similar values and interests and, by one of those lovely quirks of fate, made contact and discovered it was the real thing. We were thrilled that Chris had found the person and lifestyle she was looking for, but we were also touched to think that we had all, in our various roles of producing the magazine, had a hand in helping two people discover much love and happiness. I'm sure you'll join with us to wish them a happy life together.

Not only is GR packed with practical hints and knowhow but it is a forum where people of diverse interests and backgrounds can come together to learn, share, buy and sell, exchange, make friends and contacts, and even meet the person of their choice. No, it's not *just* another magazine!



Chris and Fred on their wedding day.

The word for Coonara stoves is SENSATIONAL! In line with the Going Solar policy to sell high quality equipment, we now sell the Coonara range. There is a freestanding stove, a stove that can be inserted into a fireplace, a fireplace that can central heat, a central heating furnace, and a grate that will improve the efficiency of an open fireplace. They can all be connected to the Beasley 5M hot water tank. Call in, or send three stamps for a catalogue and ask for the Coonara leaflets to suit your needs.



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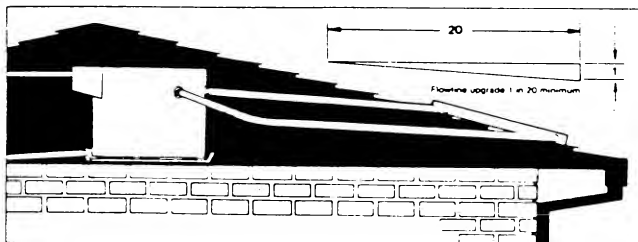
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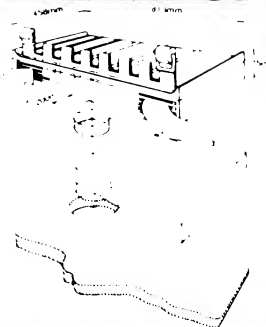
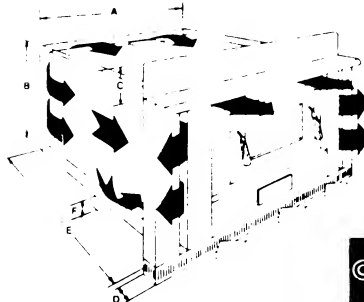
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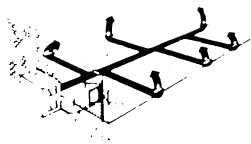
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